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# FM 21-5

DEPARTMENT OF THE ARMY FIELD MANUAL

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## MILITARY TRAINING

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DEPARTMENT OF THE ARMY • SEPTEMBER 1950

DEPARTMENT OF THE ARMY FIELD MANUAL  
FM 21-5

*This manual supersedes FM 21-5, 16 July 1941, and TM 21-250, 19 April 1943,  
including C 1, 19 August 1944*

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DEPARTMENT OF THE ARMY • SEPTEMBER 1950

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*This manual supersedes FM 21-5, 16 July 1941, and TM 21-250, 19 April 1943, including C 1, 19 August 1944.*

# **PART ONE**

## **TRAINING MANAGEMENT**

### **CHAPTER 1**

#### **MILITARY TRAINING**

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#### **Section I. GENERAL**

##### **1. PURPOSE AND SCOPE**

*a.* This manual is designed especially for instructors of military subjects at all levels, and prescribes the basic techniques and methods to be used in efficiently accomplishing the training mission. Adherence to the principles set forth herein will best effect the desired training objective in the shortest possible time.

*b.* This manual contains the principles to be used in training personnel of the United States Army. It outlines the objectives of military training and it prescribes the means and methods available to the instructor for obtaining those objectives. The ultimate purpose of all military training is to prepare military personnel to carry out efficiently and expeditiously the responsibilities of the Army in accomplishing its mission.

*c.* The manual outlines procedures that are of value to the instructor in conducting training, and covers such subjects as preparation and presenta-

tion of lesson material, techniques of applying information and skills, purposes and types of examinations, procedures in conducting discussions and critiques, techniques of supervision of instruction, and planning and use of training aids.

*d.* The appendixes contain information on references, types of items for objective tests, a sample subject schedule, and a sample field exercise.

## **2. BASIC MILITARY QUALITIES**

The ability for successful offensive action is gained by military training—training that develops in soldiers and units the following qualities:

*a.* Health, strength, and endurance.

*b.* Discipline.

*c.* Morale and esprit de corps.

*d.* Initiative.

*e.* Adaptability.

*f.* Technical proficiency.

*g.* Leadership.

*h.* Teamwork.

*i.* Tactical proficiency.

## **3. BASIC CONCEPTS OF TRAINING**

To develop the qualities enumerated in paragraph 2, military training is based on the following concepts:

*a.* The dignity of the individual is not violated.

*b.* The average man can be made into an efficient soldier when his training is properly planned, conducted, and supervised.

*c.* The applicatory system of instruction best meets the needs of military training.

d. Military training progresses from basic to advanced subjects, and from individual to team training.

e. Skills are acquired through supervised practice.

f. Doctrine and techniques are standard throughout the Army.

g. Responsibility for conducting training is delegated to the unit commander.

#### 4. PHASES OF TRAINING

a. Training advances by phases. First, the recruits are trained to be soldiers; then, the soldiers are organized into units; finally, the units are merged into teams of the combined branches. These general phases of training are *individual*, *unit*, and *combined training*. For convenience in planning and to indicate definite stages of progress, these general training phases may be further subdivided as follows:

- (1) *Basic military training* shows the recruit how to adapt himself to army life, indoctrinates him in the fundamental military skills, and prepares him to receive advanced training. In this phase he is conditioned mentally, morally, and physically.
- (2) *Advanced individual training* teaches the basically trained soldier his occupational skills, and prepares him to function effectively as a member of a military team. He receives training as a leader or specialist, and receives some tactical training.
- (3) *Basic unit training* provides the opportunity for the soldier to learn the value of team-



work, and to practice, as part of a small team, the skills he acquired in individual training. Advanced individual training is continued for all leaders, and for those technicians whose duties require additional training.

- (4) *Advanced unit training* integrates the small units into coordinated battlefield teams (companies, battalions, groups and regiments) of their respective branches. In this phase the branch teams perfect their tactics, operating procedure, and use of manpower, weapons, and equipment.
- (5) *Combined training* develops teams of the combined branches capable of sustained offensive combat.
- (6) *Joint training* is conducted in conjunction with the Air Force and Navy to develop the balanced forces necessary for victory in war.

b. There is no distinct boundary between these training phases; rather, each phase overlaps the next. For example, the individual may be receiving advanced individual training and basic unit training concurrently; or the rifle battalion may be trained with artillery and armored units before the regiment trains as a unit. Continuous military training of the individual is emphasized throughout all phases to perfect skills and techniques.

## **Section II. INDIVIDUAL TRAINING**

### **5. RECRUIT TRAINING**

a. The recruit's training familiarizes him with his new surroundings and acquaints him with his

responsibilities as a soldier. Short, simple talks tell him what is expected of him and what he may expect from the Army. The commander makes every effort to remove the recruit's feelings of strangeness in his new life.

b. Recruits receive early instruction in the Articles of War, local orders, military courtesy and customs of the service, uniform regulations, and rules for healthful living. Special literature and training films are available to help commanders with this training. Commanders make full use of the services of the chaplain, the special services officer, the troop information and education officer, and the Red Cross in assisting the recruit to adjust himself to military life.

## **6. DRILL**

Drill is an exercise, taught and practiced, to develop control, discipline, teamwork, and facility in execution. The primary purpose of military drill is to instill precise, orderly habits in the soldier. This in turn helps build discipline. Drill also is used to increase skill and coordination, to improve physical condition, and to promote teamwork. It accustoms the soldier to group response to commands, to group participation, and to group achievement of common goals. The soldier must know and understand the purpose of drill; otherwise, much of its value is lost. Drill is conducted with precision. Perfection is the only acceptable standard. To obtain this perfection, drill periods are precise, frequent, and short. Drill is a means to an end, not an end in itself.

## **7. PHYSICAL TRAINING**

*a.* Total fitness for duty requires military personnel to have good health, strength, and endurance. Commanders must give constant attention to the physical training of their men. Conditioning exercises, foot marches and drills develop strength and endurance. Marches and athletics maintain the acquired physical condition. Athletics develop soldiers mentally as well as physically, teaching both leadership and teamwork. Commanders encourage voluntary athletics for recreation.

*b.* Rules of health are taught along with physical training. Personal cleanliness, ample sleep, sound eating habits, and healthful recreation are stressed.

*c.* A sound physical training program improves the soldier's attitude toward his job. When he knows that he is improving physically, he gains confidence in his ability to do his part in his group's work. When he gains this confidence, he has more interest in his duties and in his unit. Confidence and interest are evidences of a good state of mind.

*d.* In physical training, the emphasis must be on the development of all the individuals of the unit.

## **8. CHARACTER GUIDANCE**

The commander's responsibility includes the moral aspects of all training. During training, soldiers are encouraged to develop high standards of personal conduct and honesty, a sense of responsibility toward duty, an obligation toward their fellow soldiers, and a concern for their unit's welfare. The commander supports his training by personal example, and re-

quires exemplary conduct of his unit leaders. He encourages military and civilian agencies that sponsor wholesome recreation. The chaplain, as an active assistant to the commander, directs his efforts toward the spiritual and moral welfare of the command.

## **9. RECREATION**

Healthful recreation and diversion are essential to efficiency. The commander provides for recreation during off-duty hours and makes leave time available to all members of his unit. He makes sure all members of the command know what recreational facilities are available, and he notifies them of the pass and leave policies.

## **10. THE TROOP INFORMATION AND EDUCATION PROGRAM**

The Army keeps its troops informed of the world situation; builds self-respect and pride in the profession of arms; it fosters awareness of a soldier's responsibility; it creates an understanding of American democratic principles; it strengthens confidence in the future of our country; it stimulates mental development; it provides educational opportunities; and it encourages educational development, particularly along Army career lines through the following programs:

*a. The Troop Information Program* is the commander's means of informing personnel of the Army on certain matters related to their duties and providing them with sources of general information, in order that they may evaluate and understand their

responsibilities as members of the Armed Forces and as citizens. An essential part of the program is open discussion on matters of military and general importance; that is, the Troop Information Hour.

*b. The Army Education Program* is that part of the educational system of the Army which is devoted to the instruction of subjects normally taught in civilian academic and vocational institutions. The general objectives of the Army Education Program are to encourage educational development along Army career lines and to provide specific means by which commanders may assure continuing educational opportunities for members of their commands, in order that the individual may render efficient service in his present assignment, increase his capabilities for assuming greater responsibility, and, in his leisure time, satisfy his intellectual desires. The program provides educational facilities at the basic, intermediate, high school, and college educational levels, and it is implemented principally at Army Education Centers established by the commanding officers of military installations serving battalions and larger units. The various types of educational facilities provided include classes conducted by teachers from schools and colleges located near the military installations, or by teachers employed by the Army, and correspondence and self-teaching courses made available to servicemen through the United States Armed Forces Institute (USAFI). USAFI also supplies text books, tests, and other educational aids to the Army Educational Centers. With the exception of the instruction of servicemen in the basic educational level, the Army Education Program pro-

vides for voluntary off-duty participation of military personnel desiring self-improvement and is related to, but is not a part of, their training to meet military requirements.

## **11. CITIZENSHIP TRAINING**

One of the most important military subjects is citizenship. This subject is given through the Troop Information and Education Program. It helps the soldier understand his responsibilities as a soldier, and as a citizen, who owes allegiance to the United States.

## **12. RESPONSIBILITY AND LEADERSHIP**

One goal of military training is to develop a sense of responsibility in all troops; to teach every soldier to feel a personal obligation for the effective performance of his duties and for the efficient functioning of his team. In addition, those who are capable of leadership are given the opportunity to command. The development of leaders is a major function of military training. A man of good character who has the intelligence and the desire to lead, can be made into an effective military leader through progressive training and supervision. Diligent application of the principles and techniques by the man himself is required. Leaders are trained in duties of the higher grades that they can be expected to assume in wartime.

## **13. TRAINING NONCOMMISSIONED OFFICERS**

a. A commander gives his noncommissioned officers the responsibilities appropriate to their grades.

He develops them as leaders by requiring them to exercise their abilities and by supporting their position in the unit.

*b.* The commander uses unit and service schools to instruct noncommissioned officers in their duties and to prepare them for higher command. He gives selected privates training to fit them for promotion.

#### **14. OFFICER TRAINING**

*a.* Officer training is continuous throughout service. An officer continues to increase his knowledge and skill by actual experience in command and staff duties; by serving in various assignments; by attending unit and service schools; and by individual study.

*b.* A commander encourages and assists his officers to improve themselves professionally. He gives them broad experience by careful assignment of duties.

#### **15. CAREER GUIDANCE AND CAREER MANAGEMENT**

Career plans help commanders develop capabilities of officers, warrant officers, and enlisted personnel. These plans are directed by the Department of the Army and are administered by lower commanders. The plans are designed to provide a system of development of military personnel through assignment, training, and advancement, based on individual abilities, aptitudes, and initiative. The plans help make the best use of manpower, and provide the maximum opportunity for advancement within individual capabilities.

## Section III. UNIT AND COMBINED TRAINING

### 16. GENERAL

Unit and combined training emphasize the development of military teams. A most important part of unit and combined training is the conduct of exercises that apply tactical, technical, or logistical procedures and doctrine to assumed combat situation. These are called *tactical exercises*.

### 17. TACTICAL EXERCISES

a. Some tactical exercises are designed primarily to train the soldier in his present or future team duties. These are sand table, map, and terrain exercises, and map maneuvers. Other tactical exercises are designed for team training and for perfecting the soldier's skills and techniques through practice. Examples are command post exercises, field exercises, and field maneuvers.

b. Tactical exercises are begun in the earliest practicable stage and are continued throughout the training. They often are used to determine the combat readiness of a unit. They consist of realistic situations presenting specific problems for the participants to solve. Enemy action may be represented by aggressor forces.

c. The term *tactical exercise* does not apply to combat troops only. The principles and techniques of conducting tactical exercises are applicable to the training of all troops of any branch of service. These exercises emphasize the wartime conditions and difficulties that training overcomes. For details of preparation and conduct, see paragraphs 153-166.



## 18. SAND TABLE AND TERRAIN MODEL EXERCISES

These exercises are tactical exercises using sand tables, miniature ranges, or other terrain models to teach—unit tactics, tactical training of the individual soldier, occupation and selection of gun positions, observation of fire, and similar subjects. Their use requires a scale appropriate to the size of the unit involved, and markers to represent the different types of troops.

## 19. MAP EXERCISES

*a.* Map exercises are tactical exercises in which a series of related situations are stated, and individual solutions are discussed, with a map as the only guide to the terrain. They are especially useful for advanced individual instruction in staff techniques, troop leading, and application of tactical doctrine for large units.

*b.* In a map exercise the instructor presents a series of situations with accompanying requirements. The students, acting as commanders or staff officers, solve the requirements by making decisions or plans, preparing orders, or conducting operations. The students usually solve the requirements individually, but they can be required to give a group solution to save time in large classes and to stimulate interest. One or more solutions usually are discussed. After the discussion the instructor gives a solution to the requirement to give the students a common basis for solving later requirements.

## 20. TERRAIN EXERCISES

Terrain exercises are similar to map exercises except that the actual ground is used to discuss the dispositions and movements of imaginary troops. These exercises are especially useful in training leaders and staff members in terrain appreciation and reconnaissance technique. To develop their skill in evaluating terrain, provide aerial photographs or outline maps that omit ground forms.

## 21. MAP MANEUVERS

*a.* Map maneuvers are tactical exercises in which the students, organized as staffs, conduct military operations on a map. This type of exercise trains the players to make decisions, to prepare orders, to apply tactical principles, to exercise command, and to improve their staff teamwork. A critique is held immediately following the maneuver. A director and umpire assistants control the exercise. Troops and installations of the opposing sides are represented by markers or symbols.

*b.* Map maneuvers can be either one-sided or two-sided—

- (1) In the one-sided map maneuver, players are assigned to one side only, and the enemy movements are controlled by the director. The one-sided maneuver is valuable because the director can control the action, to bring out the application of specific principles. In the sequence of instruction the one-sided map maneuver precedes the two-sided map maneuver.

- (2) In the two-sided map maneuver, players are assigned to both sides. This gives the participants more free play than the one-sided map maneuver and is therefore more interesting.

## **22. COMMAND POST EXERCISES (CPX's)**

*a.* Command post exercises are tactical exercises, in which the participants consist of all or part of the unit's command, staff, headquarters, and communication personnel. Other troops and their equipment are imaginary. The purpose of command post exercises is to develop teamwork, to improve individual skills and techniques, and to test plans, procedures, and methods for contemplated operations or maneuvers.

*b.* Command post exercises may differ in many respects. At one extreme is the type that closely resembles the map maneuver with command posts grouped in one location. In this case, the umpires impose normal communication time lags. At the other extreme is the exercise in which command posts are separated by normal distances, and adequate headquarters and communication troops are provided to install and displace all command posts and communication.

*c.* Command post exercises may be either one-sided or two-sided. In the one-sided exercise the participating units represent the friendly troops while the umpires represent the enemy. In the two-sided exercise participating units represent both friendly and enemy troops, and the umpires arbitrate the action.

## **23. FIELD EXERCISES**

Field exercises are tactical exercises conducted on the ground under simulated combat conditions, in which the troops and matériel of one side actually are present in whole or in part, and the troops and installation of the opposing force are imaginary, outlined, or represented. The purpose of a field exercise is to train the friendly force. Units are allowed free play within the practical limits of time, terrain, training objective, and other considerations. A director and umpire assistants control a field exercise. The enemy action is a training aid; it is preplanned to emphasize the desired training. The enemy force may be represented by units organized as the aggressor.

## **24. FIELD MANEUVERS**

Field maneuvers are tactical exercises conducted on the ground under simulated combat conditions. The troops and installations of both sides are actually present in whole or in part. The purpose of a field maneuver is to train *all* participating units. Both sides are allowed free play within practical limits. A director and umpire assistants control the maneuvers. One force may be organized as the aggressor. Field maneuvers are the closest possible training approach to actual combat.

## **25. JOINT EXERCISES**

Joint exercises are exercises in which elements of two or more of the armed services (Army, Navy, and Air Force) participate.

## **Section IV. SCHOOLS AND COURSES**

### **26. GENERAL**

*a.* Many schools and courses of study are available to the soldier for professional improvement throughout his career. They increase his value to the service and prepare him for advancement. In selecting a man to attend a service school, the commander makes certain that a reasonable benefit will be realized. The man selected should have a desire to attend. He must show ability that indicates he can complete the course successfully and thereafter apply what he has learned.

*b.* Schools help the commander standardize doctrine and techniques. Maximum attendance is encouraged for men who will benefit from training. The men who return from service schools are assigned jobs where they apply what they have learned.

### **27. UNIT SCHOOLS**

Commanders conduct unit schools to standardize doctrine and techniques and to improve the professional knowledge of their men. The duration and scope of unit schools depends upon the training mission, the state of training, and the available time.

### **28. ARMY EXTENSION COURSES**

Army Extension Courses are conducted by the service schools to give individual home-study training in military subjects to members of all components of the Army. The courses are progressive and they follow generally the scope of resident instruction given at these schools.

## CHAPTER 2

### TRAINING PLANS AND ORDERS

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#### Section I. GENERAL

#### 29. TRAINING MANAGEMENT

*a.* Training management is the planning and direction of training to accomplish the training mission in the time and with the means available. It is every commander's responsibility. The essential parts of training management are planning, direction, and supervision.

*b.* When the commander receives a training mission, he first estimates the situation to decide on his general training plan. He next develops detailed plans, and prepares and publishes his orders. Then, he supervises the execution of the orders to be sure that the mission is accomplished. He revises his estimate and plans to meet changing conditions.

#### 30. TRAINING ORDERS

*a.* Training orders take many forms. *Training directives* are used to initiate training (fig. 1). They announce broad statements of policy or assign training missions. Normally, they are issued by commanders higher than a division commander. *Training circulars* are published by the Department of the Army and are used to announce training pol-

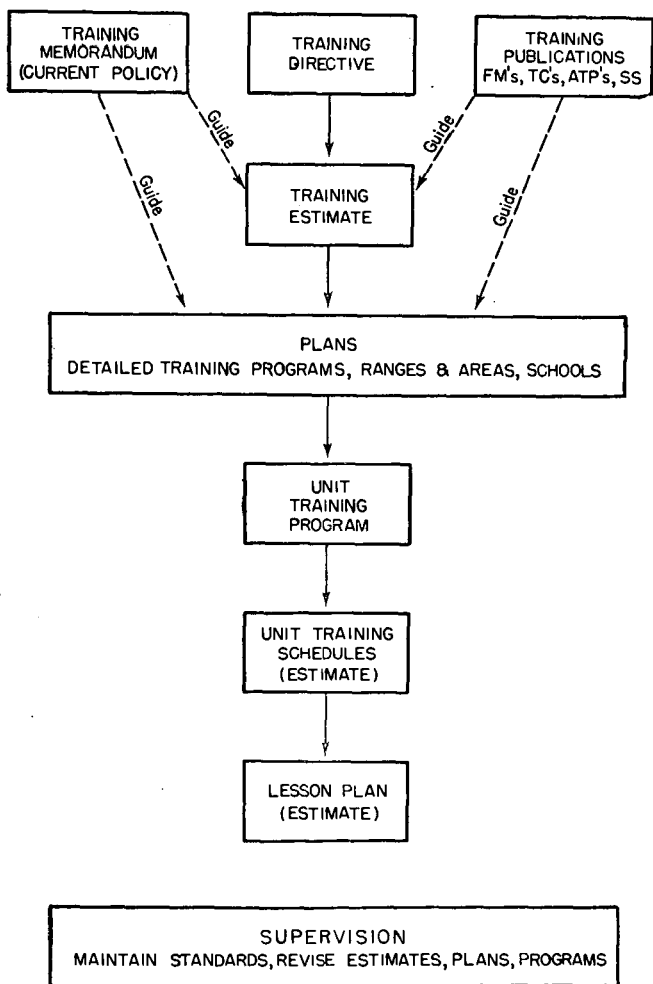
icies or information of a temporary nature, or new training doctrine, tactics, or technique, the immediate dissemination of which is essential. *Training memorandums* are issued at all levels of command authorized to publish administrative orders. They contain permanent or semi-permanent instructions relative to training.

*b. Training programs and schedules* contain the plans and instructions for training a unit under a given set of circumstances. All commanders use them in training their units. On a division or lower unit level, training programs usually are published as training memorandums.

### **31. DECENTRALIZATION AND CENTRALIZATION**

*a. Training is decentralized* when a commander delegates the details of planning and conducting training to his subordinates, while he retains only general control. Decentralized training helps leaders develop initiative and ability to command. It enables the men to know and gain confidence in their leaders. Commanders coordinate training and keep its standards high by preparing their leaders in unit schools and by actively supervising the training. Decentralized training is the best way to build leadership, teamwork, esprit de corps, and tactical proficiency.

*b. Training is centralized* when the commander controls the training details. This may be done to conserve training time and facilities, to get the best use of certain specially qualified instructors, or to standardize the teaching of doctrine and techniques. The training of the individual soldier without regard



*Figure 1. Steps in training management.*



to his unit, and the conduct of schools are examples of training that normally is centralized.

c. Training plans usually include both centralized and decentralized training.

## 32. PROGRESSION AND BALANCE

a. Training in any subject is planned to progress from the simple to the complex, from the basic to the advanced. Military training progresses from the preparation of the soldier for duty as a team member to the training of the team as a whole. This progression in training is a ladder to success in combat. To omit or to misplace some of the rungs to this ladder is to risk failure.

b. Training in any period, such as a week, is planned to contain a variety of essential subjects. This balances the development of soldiers and units, and maintains interest in the training program. The soldier's training in any subject is in keeping with his immediate needs, and is in correct proportion to his training in every other subject. For instance, a soldier needs dismounted drill more during his first week of training than during his tenth; therefore, he receives a greater portion of that training in the first week. Drill, however, does not cause neglect of the other essentials that he needs during that first week. Military courtesy and customs, medical subjects, weapons training, and other subjects receive their share of training time.

c. In the same manner, a *unit* receives proportionate training in the essential subjects. To assure a balanced development of its abilities as a fighting unit, it practices defense, security, and tactical marches, as well as the attack.

## Section II. ESTIMATE OF THE SITUATION

### 33. GENERAL

To arrive at a plan that will most effectively accomplish his unit's training mission, the commander first estimates the situation. The scope of his estimate depends on the detail contained in the order from higher commanders. A training estimate may require a decision on all elements of a complete training plan or it may require a decision only on the conduct of specific training.

### 34. APPLICATION

The commander uses the thought process illustrated in FM 101-5 to prepare his estimate. He bases his estimate on the training directive, on his unit's existing state of training, and on other known factors of his particular situation. He uses current publications as a guide.

### 35. DISCUSSION

a. The *mission* is the most important item to consider in the estimate. It is a statement of the task and purpose. When the mission is multiple, the commander establishes priorities. When he adds his own objectives, he must be certain that they can be attained in the time and with the facilities available, and that they contribute to the accomplishment of his mission.

b. The commander gets complete information of the *situation* by analyzing the reports of his staff and lower commanders, by personal observation, by tests

and inspections, and by any other means at his disposal. The most common factors that affect the training situation are—

- (1) The existing state of training.
- (2) The time available for training.
- (3) The facilities available for training.
- (4) The local climate and terrain.
- (5) Obstacles to training.

*c.* Consideration of these factors in relation to the mission and to each other suggests certain courses of action which, if successfully followed, will accomplish the mission. These courses of action include —

- (1) Selection of the essential subjects and their sequence.
- (2) Organization for training.
- (3) Lengths and dates of the training phases.
- (4) Preparation and use of training facilities.
- (5) Administration of the training.

*d.* Those courses that satisfy all factors of the training situation then are *compared to each other* to determine the one that accomplishes the mission most efficiently. The best course of action becomes the *decision*, which may be expressed as a number of broad statements that accomplish the training mission under the imposed conditions. The decision then becomes the guiding directive for detailed planning.

## 36. EXISTING STATE OF TRAINING

The existing state of training is the first factor to be considered, because it is the starting point for the training program. It directly affects the essential

subjects, and the lengths of training phases. To determine his unit's existing state of training, the commander considers the training status of each man in his unit and that of his unit as a whole. When soldiers who are qualified in the subjects to be taught are not familiar with instructional methods and techniques, Army Methods of Instruction become an essential subject for the training program. Qualified units, or those most nearly expert in any phase of training, are considered for demonstration units. The phases of training to be covered and the personnel qualified as instructors influence the organization for training.

### **37. ESSENTIAL SUBJECTS AND THEIR SEQUENCE**

*a.* Essential subjects are those in which proficiency is needed to accomplish a particular training mission. Guides to the essential subjects, their sequence, and the standards of proficiency to be reached are found in Army training programs (ATP's), field manuals, technical manuals, and other current training publications. The training directive may dictate some of the essential subjects. As a basis for determining the essential subjects when no guides are available, the commander considers the basic military qualities to be developed in individuals and units. He determines the relative importance of the subjects and the scope of each from the existing state of training and his training objective.

*b.* The commander may have to modify the normal sequence of subjects to make the best use of the time and facilities available, and to conform to climatic and other conditions of the training situation.

### **38. TIME AVAILABLE**

The time available for training usually is found in the directive. It does not change the list of essential subjects. It does affect the scope of the essential subjects, the organization for training, and other courses of action; and it may limit subjects the commander considers desirable. In considering time available, the commander allows for the time consumed in going to and returning from training areas. Travel time is a training loss unless it is used for part of the training in marches, or for other training that can be conducted while the troops are marching.

### **39. EQUIPMENT AND FACILITIES**

The commander considers the training aids and facilities that are ready for use in relation to the number of men to be trained and the subjects to be taught. He foresees the need for special or additional equipment or facilities, and plans their procurement. He coordinates the use of limited facilities by his lower units to be sure that each unit has its proportionate share of time with those facilities.

### **40. LOCAL CONDITIONS**

*a.* When a commander plans his unit's training, he considers local weather conditions and the availability of suitable terrain. Seasonal changes usually require some training to be conducted indoors. His plan provides for this indoor training. Schools for officers, noncommissioned officers, and specialists, and the preparatory training for outdoor exercises can be conducted indoors. This does not imply that all

outdoor training stops during inclement weather. To prepare for continuous exposure in combat, some training is conducted under adverse conditions.

b. Where local terrain is limited or unsuited to certain phases of tactical training, additional areas may be obtained outside the military reservation or the training methods may be modified. Sand tables are especially valuable in teaching patrolling, the use of cover and concealment, and the tactical handling of small units. Map exercises that illustrate definite tactical doctrines are used as a substitute for practical work on the ground. Training films that demonstrate the application of tactical principles are helpful.

#### **41. ORGANIZATION FOR TRAINING**

a. The organization for training depends primarily upon the mission and the subjects being taught. When the training is for individuals without regard to unit, a centralized committee system of training often is expedient. This system of training pools the available instructors in a command and details them to instructional groups that specialize in teaching certain subjects. The commander who centralizes any training in this manner has, by the very nature of the committee system, relieved his unit commanders of their normal responsibility for training their units in those subjects. The committee system is particularly applicable to the teaching of subjects of a technical nature, and where the number of qualified instructors is limited. The commander must realize, when he uses this system of training, that he is obtaining only individual proficiency. The other

military qualities are gained during unit training.

b. When the training is to develop teams, it is decentralized.

c. The available time and facilities and the existing state of training affect the amount of decentralization. The normal training plan includes some centralized training and some decentralized training.

## 42. OBSTACLES TO TRAINING

a. The common obstacles that threaten effective training are classified as *administrative*, *physical*, and *human*. It is the commander's responsibility to remove or to reduce these obstacles.

b. Too many men, unnecessarily detailed for fatigue and other special duties, present the chief administrative obstacle. Good administration and good training exist together in a well-run organization. Frequent rotation of the men on administrative assignments allows them to receive the necessary training. To offset training time lost to fatigue and other duties, these details should be handled by complete units. Thus, a complete squad should be detailed, rather than a noncommissioned officer and an equal number of men from a duty roster. In this way, even on fatigue, the squad leader continues to develop his capacity for leadership.

c. How to overcome physical obstacles to training has been partially discussed under other headings. These obstacles include distance from barracks to training areas and ranges, poor terrain for training, bad roads, lack of transportation, poor classrooms for indoor instructions, and similar factors that adversely affect training. They are a challenge to the com-

mander's planning skill. Alternate plans, good coordination, substitute methods, and bad-weather schedules are kept in readiness to overcome them.

d. A lack of individual desire to acquire military proficiency is the primary human obstacle during peacetime, because the need for military skill is not readily apparent. Correct training methods, the troop information and education program, and the coordination of personnel agencies help overcome this obstacle. All commanders and instructors must exploit all possible means to motivate the individual's desire to learn and improve himself in military knowledge and skills.

### **Section III. TRAINING PROGRAMS AND SCHEDULES**

#### **43. GENERAL**

The commander's estimate of the training situation results in his decision or *general plan*, which consists of the conclusions as to the action necessary to accomplish the training mission. These show the best action for meeting each consideration of his estimate. From this general plan the commander develops the detailed plans for training his unit. These plans are an enlargement of the broad statements of his general plan. They include detailed training programs, assignments of ranges and facilities, subject schedules, standards of training to be attained in specific subjects, instructions for the conduct of schools, and plans for the improvement of training facilities. The unit training program includes as many of these detailed plans as are necessary for the lower units to accomplish their training missions.



## 44. UNIT TRAINING PROGRAM

a. A *unit training program* presents the plan for training a command over a number of weeks, such as a 14-week training phase. It is issued by commanders down to and including the commander of a company-size unit. The amount of detail in the program is limited by the mission, and the size and type of organization for which it is prepared.

b. A training program may be written as shown in figure 2, or it may be written in tabular form as shown in figures 3 and 4. When the tabulation lists common subjects for many types of units within a command (fig. 3) it is called a *master program*. When the tabulation includes only those subjects that pertain to one unit, or to one type of unit (fig. 4), it is called a *detailed training program*. A company training program usually is published in tabular form. A large unit's program may include a tabulation, in addition to its other contents.

## 45. SUBJECT SCHEDULE

a. A *subject schedule* gives detailed suggestions for the conduct of training in a particular subject. It shows the progression of training in that subject, the length of the course, the references, type of area, training aids, and a method of conducting each lesson. It is prepared from the official training publications on that subject. It is an elaboration of the information shown in the training program. Normally, service schools prepare subject schedules. The schedules appear in the appendixes of many field manuals.

## HEADQUARTERS

.....  
.....  
.....  
(Date)

### TRAINING MEMORANDUM

NUMBER .....

#### TRAINING PROGRAM

##### 1. MISSION

- a. Citation of directives from higher headquarters, when this is necessary to give a complete understanding of the program.
- b. Information of the existing situation affecting training.
- c. Concise statement of the training mission.

##### 2. GENERAL PLAN

This paragraph contains general information which concerns the training of the entire command. Examples are:

- a. The length and dates of the training period; holidays and other excluded time; hours and days per week available for training.
- b. The phases of training and the time allotted for each.
- c. Any references which will be of general guidance.

##### 3. DETAILED PLAN

- a. Training common to all units.

Include a list of the common subjects (including scheduled inspections and tests), the time allotment for subjects, any necessary description of the training, references, and special instructions for scheduling.

- b. Training peculiar to one unit or to a group of similar units.

The training described in this subparagraph is in addition to that shown in subparagraph 3a. Include a list of the subjects, including scheduled inspections and tests; any necessary description of the training; references; the time allotment for subjects; and any special scheduling instructions.

①

*Figure 2. Suggested form for a unit training program.*

c. (d., e., f., etc.) These subparagraphs have the same scope as subparagraph 3b.; one subparagraph is used for each unit or group of similar units which requires separate instructions. Annexes may be used to give full details. If that is done, subparagraph 3b might read:  
"b. Rifle Companies - Annex 1."

k.\* Training areas and facilities.

A detailed plan for coordination in their use may be shown in an annex.

l.\* Schools.

Include those conducted by this or higher headquarters and those to be conducted by subordinate headquarters.

m.\* Any additional instructions.

(\*) Subparagraph designations vary according to the number of preceding entries.

#### 4. ADMINISTRATIVE INSTRUCTIONS

This paragraph includes complete clarification of any administrative details which influence training. Some suggested items are:

a. Uniforms and equipment.

b. Schedules, records, and reports.

c. Funds available for training needs.

d. The availability of personnel for non-training duties (guard, fatigue, etc.); leaves of absence.

BY COMMAND (or ORDER) OF.....:

.....  
Chief of Staff (Adjutant)

OFFICIAL:

---

Adjutant General (Adjutant)

ANNEXES:

DISTRIBUTION

②

Figure 2—Continued.

# Master program, infantry regiment.

SUBJECTS	Rifle Company	Heavy Weapons Company	Heavy Tank Company	Heavy Mortar Company	Technical Headquarters Company	Battalion Headquarters Company	Service Company	Technical Medical Company	Battalion
Basic and general (Entire company)									
Antitank and antipersonnel mines; booby traps .....	8	8							.....
Combat intelligence and counter- intelligence .....	6	6							.....
Chemical warfare training .....	8	8							.....
Dismounted drill and ceremonies .....	18	18							.....
Elementary map and aerial photograph reading .....	8	8							.....
Maintenance of clothing and equipment .....	4	4							.....
Extended order .....	6	6							.....
Grenades .....	8	8							.....
Identification of mechanized vehicles .....	2	2							.....
Identification of aircraft .....	3	3							.....
Inspections .....	20	20							.....
Interior guard duty .....	4	4							.....
Military courtesy and customs .....									.....
Articles of War .....	5	5							.....
Medical subjects, basic .....	17	17							.....
Motor movement, entrucking and detrucking .....	4	4							.....
Organization of the Army .....	2	2							.....
Orientation course .....	7	7							.....
Personal affairs of military person- nel and their dependents .....	2	2							.....
Marches and bivouacs .....	36	36							.....
Physical training .....	40	40							.....
Commander's time .....	24	24							.....
Tactical training of the infantry soldier .....	36	36							.....
Tactics of the squad, section and platoon, day and night .....	62	62							.....
Tactics of the company .....	16	16							.....
Tactics of the battalion .....	8	8							8
Training tests, army or corps .....	44	44							.....
Subtotal—basic and general .....	398	398	398	398	306	306	306	298	8
Subtotal—technical .....	218	218	218	218	310	310	310	318	.....
Total .....	616	616	616	616	616	616	616	616	8

NOTE:  
Hours of training for  
remaining units omit-  
ted in illustration only

Figure 3. Suggested form for a master training program.

## Unit training program, rifle company, infantry regiment.

Subject	Text Reference	Total Hours	Hours per week													
			1	2	3	4	5	6	7	8	9	10	11	12	13	14
Basic and general (Entire company)	Omitted in illustration only															
Antitank and antipersonnel mines; booby traps .....		8								8						
Combat intelligence and counterintelligence .....		6							2	2	2					
Chemical warfare training .....		8							4	4						
Dismounted drill and ceremonies.....		18	4	2					2	2	2	2	2	2	2	2
Elementary map and aerial photograph reading .....		8							2	2	2	2				
Maintenance of clothing and equipment .....		4	4													
Extended order .....		6	2	4												
Grenades .....		8								8						

①

Figure 4. Form for a detailed training program.

Subject	Text Reference	Total Hours	Hours per week													
			1	2	3	4	5	6	7	8	9	10	11	12	13	14
Basic and general—Continued (Entire company)	Omitted in illustration only															
Identification of friendly armored vehicles		2							2							
Identification of friendly aircraft		3							1	1	1					
Inspections		20	2	2	2				2	2	2	2	2	2	2	
Interior guard duty		4	4													
Military courtesy and customs		5	3	2												
Articles of War		17	4	4					2	2	2	2	1			
Medical subjects, basic		4									4					
Motor movement, entrucking and detrucking		2	2													
Organization of the Army		7	1	2						1	1	1	1			
Orientation course		2	2													
Personal affairs of military personnel and their dependents		2	2													

(2)

Figure 4—Continued.

Subject	Text Reference	Total Hours	Hours per week													
			1	2	3	4	5	6	7	8	9	10	11	12	13	14
Basic and general—Continued (Entire company)	Omitted in illustration only															
Physical training; obstacle course; hand-to-hand fighting; disarm- ing tactics		40	4	4	4				4	4	4	4	4	4	4	
Marches and bivouacs		36	2	2						4	4	4	4	8	8	
Commander's time		24	2									4	2	8	8	
Tactical training of the infantry soldier		36		10					4	6	8					
Tactics of the squad, section, and platoon, day and night		62							4	4		12	26	16		
Tactics of the company		16												4	12	
Tactics of the battalion		8													8	
Training tests, individual, by army or corps		44														44
Subtotal—basic and general		398	36	32	6				16	44	44	44	44	44	44	44
Subtotal—technical		218	8	12	38	44	44	44	28							
Total		616	44	44	44	44	44	44	44	44	44	44	44	44	44	44

③

Figure 4—Continued.

Subject	Text . Reference	Total Hours	Hours per week													
			1	2	3	4	5	6	7	8	9	10	11	12	13	14
Technical	Omitted in illustration only															
Entire company:																
Bayonet .....		8	.....		4	4	.....									
Carbine .....		8	.....			4	.....	4								
Rifle, cal .30 .....		72	4	.....	20	24	12	12								
Subtotal—technical, entire company .....		88	4	.....	24	32	12	16								
Subtotal—technical, platoon headquar- ters, sections, se- lected personnel .....		130	4	12	14	12	32	28	28							
Total—technical .....		218	8	12	38	44	44	44	28							
Rifle platoon:																
Automatic rifle, cal .30 .....		38	4	6	.....	8	12	8								
Bayonet .....		8	.....	4	4	.....										
Rifle, cal .30 .....		68	.....					20	20	28						

(4)

Figure 4—Continued.



Subject	Text Reference	Total Hrs.	Hours per week													
			1	2	3	4	5	6	7	8	9	10	11	12	13	14
Technical—Continued	Omitted in illustration only															
Operation of patrols, day and night .....		8			4	4										
Scouting and observing, day and night .....		8		2	6											
Subtotal, technical, rifle platoon .....		130	4	12	14	12	32	28	28							
Weapons platoon:																
Entire platoon:		14			2	4	4	4								
Gun, machine, light, cal .30 .....		14		4	2		4	4								
Mortar, 60-mm .....		16			4	4	4	4								
Pistol .....																
Subtotal—technical, entire weapons, platoon .....		44		4	8	8	12	12								
Subtotal—technical, sections .....		86	4	8	6	4	20	16	28							
Total—technical weapons platoon .....		130	4	12	14	12	32	28	28							

(5)

Figure 4—Continued.

Subject	Text Reference (Omitted in illustra- tion only)	Hours per week													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Technical—Continued															
Light machine gun section:															
Gun, machine, light, cal .30.....		68	4	8	4	.....	16	12	24	.....	.....	.....	.....	.....	.....
Gun, machine, cal .50,															
M2, HB, flexible .....		18	.....	.....	2	4	4	4	4	.....	.....	.....	.....	.....	.....
Subtotal—technical, light machine gun section .....		86	4	8	6	4	20	16	28	.....	.....	.....	.....	.....	.....
60-mm mortar section:															
Mortar, 60-mm .....		86	4	8	6	4	20	16	28	.....	.....	.....	.....	.....	.....
Subtotal—technical, 60-mm mortar section .....		86	4	8	6	4	20	16	28	.....	.....	.....	.....	.....	.....

NOTES:—1.

2.

3.

4.

5.

6. (Notes for scheduling and conduct of training.)

7.

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10.

11.

⑥

Figure 4—Continued.

b. The number of hours, training equipment to be used, and other details of these prepared subject schedules are modified to fit the unit training program as prepared for a specific training situation. The progression shown in these schedules, however, should be maintained. When the prepared breakdown of a subject into lessons is not available to the unit, the commander may have a subject schedule prepared within his unit. References for this preparation are the field or technical manual on the subject, training circulars and other training references, and a sample subject schedule.

c. Subject schedules are used primarily to guide the unit commander in preparing the unit training schedule, and to help the instructor in preparing his lesson plan. They may be used to assist in the preparation of detailed training programs. A sample subject schedule for elementary map and aerial photograph reading appears in appendix II. Note that it is an elaboration of the information shown in item 5, figure 4 ①.

## **46. UNIT TRAINING SCHEDULE**

A unit training schedule gives detailed instructions for conducting training. It is prepared from the training program and specifies for each period of instruction, the date and hour, the subject, place, instructor, uniform equipment to be used, applicable reference material, and any remarks pertinent to the training. The training schedule may be prepared by the unit or it may be prescribed and issued by higher echelons. A form for a unit training schedule is shown in figure 5. Note that the schedule is based

on the eighth week of training as shown in figure 4. The commander uses subject schedules to assist him in preparing a unit training schedule. (See 1st and 2d periods of schedule in sec. II, app. II, and the first 2 hours of Wednesday in fig. 5 ①.)

#### **47. MODIFICATION OF PROGRAMS AND SCHEDULES**

The described programs and schedules can be modified to fit specific training situations.

#### **48. CONSTRUCTION OF PROGRAMS AND SCHEDULES**

Training programs and schedules make efficient use of the available time and facilities, they develop the training subjects progressively, they provide for variety and sustained interest, and they prevent undue fatigue. The following suggestions will assist in preparing programs and schedules according to these principles:

*a.* Training programs and training schedules are published as early as possible to give the maximum amount of planning and preparation time to those who prepare and conduct the training.

*b.* Subjects such as military courtesy, basic medical subjects, and the Articles of War come early in the training program.

*c.* Subjects such as drill and physical training are conducted throughout a training phase.

*d.* All army training is progressive. For instance, preliminary marksmanship comes before range firing; squad training comes before platoon or larger unit training.

*e.* There should be variety in the way the subjects are scheduled. Balancing the subjects to give

# Training Schedule

Co A, 10th Inf  
(Unit)

From 11 Apr. to 16 Apr  
(Date)

Ft. Blank, Ariz, 4 Apr 49  
(Date)

Day and Date	HOURS		SUBJECT	Place	Instructor	Uniform and Equipment	Text references including para. in illustration only	Remarks
	From	To						
Monday 11 Apr	0730	0755	Phy Tng—Hand-to-hand fighting	Area A	Sgt 1 cl Smith	B w/o shirts	(Omitted in illustration only)	Emphasize march hygiene
	0800	0825	D.D.—Platoon	Area A	Plat ldrs	B w/arms		
	0830	0920	Orientation course	Area A	Co Comdr	B		
	0930	1120	Med Sub, Basic	Area B	Lt Jones (3 Assts)	B		
	1230	1420	Hand Grenades	Area C	Sgt White	B		
Tuesday 12 Apr	1430	1620	C.W. Tng—Gas mask drill	Area A	Sgt 1 cl Black	B w/gas masks	(Omitted in illustration only)	Emphasize march hygiene
	0730	0755	Phy Tng—disarming tactics	Area A	Sgt 1 cl Smith	B w/o shirts		
	0800	0825	D.D.—Platoon	Area A	Plat ldrs	B w/arms		
	0830	0920	Identification of friendly aircraft	Area A	Lt Smart	B		
	0930	1120	Hand Grenades	Area C	Plat ldrs	B		
Wednesday 13 Apr	1230	1320	Tact Tng of the Inf Soldier	Area A	Sgt Brown	B	(Omitted in illustration only)	Emphasize march hygiene
	1330	1630	Practice March	Route R	Co Comdr	F		
	0730	0920	Elem. Map and Aerial Photo Reading— Maps, Coordinates.	Area M	Lt Smart	B		
	0930	1000	Practice march to Area "T"	Area T	Co Comdr	F		
	1000	1120	Tact Tng of the Inf Soldier		Plat ldrs	F		
	1130	1230	LUNCH IN FIELD		Plat ldrs	F		
	1230	1550	Tact Tng of the Inf Soldier	Area T	Plat ldrs	F		
	1600	1630	Practice march from Area "T"		Co Comdr	F		

(1)

Figure 5. Form for a unit training schedule (note that all information necessary for conducting training is shown in the schedule).

Day and Date	HOURS		SUBJECT	Place	Instructor	Uniform and Equipment	Text references including para.	Remarks
	From	To						
Thursday 14 Apr	0730	0920	C.W. Training—Recognition of gases	Area A Gas chamber	Sgt 1 cl Black	B w/masks	(Omitted in illustration only)	Darkness 2030 —Emphasize use of compass at night
	0930	1120	Identification of friendly armored vehicles	Area A	Lt Flynn	B		
	1230	1420	Grenades—Rifle	Area C	Sgt 1 cl Blue	B w/arms		
	1430	1520	Phy Tng—Obstacle course	Area D	Plat ldrs	B		
	1530	1630	D.D.—Battalion Parade	Area A	Co Comdr	A w/arms		
Friday 15 Apr	2000	2400	Rifle Squad in Night Approach March	Area E	Plat ldrs	F w/arms		
	0730	1130	OPEN TIME					
	1230	1420	Hand Grenades	Area C	Plat ldrs	B		
Saturday 16 Apr	1430	1520	Phy Tng—Obstacle course	Area D	Co Comdr	B		
	0730	0920	Combat Int. and Ctr Int.	Area A	Sgt Rite	B		
	0930	1130	Field Inspection	Area A	Co Comdr	F		

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JOHN R. DOE,  
Capt, Infantry  
Commanding

(2)

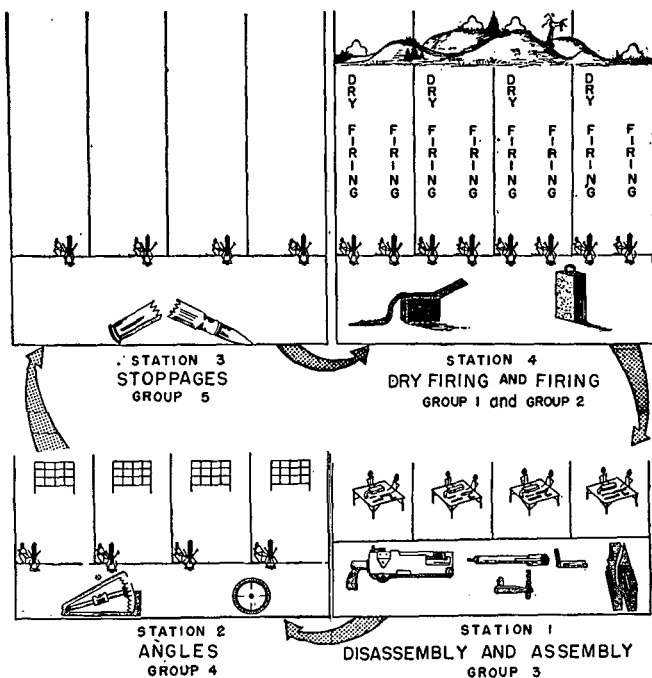
Figure 5—Continued.

variety keeps the soldier's interest high and develops well-rounded military teams. In this regard, scheduling different type of subjects for different times of the day is considered. Morning hours are best suited for training that requires the greatest precision or mental concentration. Afternoons normally are used for those subjects that require less precision, greater action and movement, or more preparation of training facilities.

*f.* The length of the period should suit the subject and method of instruction. Lectures normally should not exceed 50 minutes; training films about 30 minutes. Most types of practical work are scheduled over longer periods; for instance, a tactical exercise for a rifle company requires at least a half day.

*g.* Where an organization is scheduled to use a facility in which only a few men can participate at one time, training in related subjects is scheduled for other men at the same time. The various instructional groups then are rotated among the different subjects or stations. This type of concurrently scheduled training economizes on preparation time and equipment. An instructor can remain with one subject, teaching it to each group in turn (fig. 6).

*h.* The notes on a schedule show how to apply past instruction to new training. For example, assume that a unit has completed 4 hours of training in cover and concealment, and the next week's schedule calls for 4 hours in patrolling. It is appropriate to mention in the remarks column that the principles of cover and concealment are to be stressed during the training in patrolling. This gives continuous review of previous subjects and shows the close rela-



#### SIMULTANEOUS ACTIVITY OF FIVE GROUPS ON MACHINE GUN TRANSITION RANGE

Groups 3, 4, and 5 review disassembly and assembly, angles, and stoppages, while groups 1 and 2 do dry firing and firing.

Groups complete work simultaneously and each moves clockwise to the next station.

Group 1 moves to station 1 at end of first hour, getting 2d hour of dry firing and firing during the last hour of 5 hour cycle.

Other groups have two consecutive hours at station 4.

*Figure 6. Concurrent scheduling of related subjects to permit rotation of groups.*



tionship between past and current training. Active supervision is required to make sure that these plans are understood.

i. When night training causes the troops to lose sleep, corresponding time off from training normally is given the following morning.

j. The training schedule accounts for every minute of training time. It tells exactly what is to be done and gives a definite time for it. When the troops are given time to take a shower and to change clothes after a march, the schedule so indicates.

k. Commander's time is included in training programs to allow for additional training, to correct training deficiencies, and to allow time for making up essential training missed; or to provide time for other requirements. When the training schedule is prepared, it shows the actual subjects in which training will be conducted during these hours. *Commander's time* usually does not appear, as such, in the training schedule.

l. Schedules provide for rest periods.

m. Schedules avoid, so far as possible, the listing of subjects that require changes of uniform in consecutive hours.

n. A workable training schedule directs only those training activities that the troops actually can accomplish in the prescribed time.

o. Practical scheduling promotes effective training in a unit.

## **CHAPTER 3**

### **MAINTENANCE OF TRAINING STANDARDS**

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#### **Section I. GENERAL**

##### **49. SUPERVISION**

Every commander is responsible for all training conducted in his unit. He retains this responsibility over tasks that he has delegated to his unit leaders. He personally supervises the planning and checks the execution of the plan to make sure that the training is conducted according to the correct standards.

##### **50. METHODS**

The commander coordinates training and maintains high standards by careful selection and instruction of leaders, by the conduct of training and tactical inspections, and by daily observation and analysis. As he observes training he revises his estimate and modifies the training program, where necessary. He requires correct training methods and accurate teaching. He conducts unit schools to standardize doctrine and techniques within his unit, and to improve the professional knowledge of his leaders.

## **Section II. SELECTION AND INSTRUCTION OF SUBORDINATES**

### **51. SELECTION**

One of the purposes of the Army Career Plan is to insure effective use of manpower consistent with the Army's needs. The commander uses this plan to assist him in the job assignment of personnel in his unit. Those soldiers who have demonstrated potential leadership abilities usually will have received initial training in basic training units. Those who have aptitude for technical or specialist jobs usually will have received qualifying training in those duties. It remains for the commander to develop all personnel to the extent of their capacity. No unit commander can expect to have all his required specialists provided for him. He must keep adequate apprentices doing on-the-job training, and on detached service at schools, to satisfy his unit requirements for all specialists. Qualified administrative personnel are as necessary to effective training as qualified training personnel. They support the commander's training plans. Good training and good administration are inseparable in a military unit.

### **52. INSTRUCTOR TRAINING**

*a.* One of the best ways for a commander to provide effective training is to qualify all leaders in the applicatory system of instruction. When possible, before the start of the regular training cycle, instructor training courses are conducted under centralized control for all selected instructors. Refresher courses may be conducted throughout the training

cycle to correct common errors and to qualify newly appointed noncommissioned officers.

*b.* A brief training course gives all prospective instructors a fundamental understanding of army teaching procedures. The time spent in training instructors is repaid many times in the increased efficiency of the training program.

*c.* A course for instructors is itself a model of correct training methods. It is planned and executed by experienced instructors according to the highest standards. Every training technique is demonstrated in the most effective way. Frequent opportunities for application are provided by having the students solve practical exercises that arise in training situations, and by having them teach lessons to the class. For a sample instructor-training subject schedule see appendix III.

*d.* No instructors' course meets every situation. The officer in charge studies his unit's needs and, on this basis, prepares a course that will be of the greatest benefit. He uses appropriate references as a guide. He clearly develops the—

- (1) Job and importance of the instructor.
- (2) Fundamentals of instruction.
- (3) Preparation required for teaching and training.
- (4) Introductory steps in presentation.
- (5) Techniques of explanation and demonstration.
- (6) Planning and directing the application of skills learned.
- (7) Development and use of examinations.
- (8) Conduct of critique.

- (9) Development and use of training aids.
- (10) Securing and use of reference manuals and other training materials.

*e.* The students in the instructors' training class are given opportunities to observe experienced instructors actually at work in a unit. Then each student is given an opportunity to instruct. At first, this is limited to 5 or 10 minutes, but after several brief lessons, the students are expected to present lessons lasting from 30 to 50 minutes. The amount of practice that is required varies with their experience and ability. Each lesson presented by a student is the subject of a thorough discussion by all members of the class and the officer in charge. These discussions are helpful in pointing out to the student the good points and weaknesses of his technique, and the ways of improving his work.

*f.* Selected leaders will be given practice in the discussion group method to insure effective utilization of the information program material, and to provide qualified leaders for discussion groups on such subjects as character guidance, leadership, and certain phases of military courtesy.

### **Section III. TACTICAL AND TRAINING INSPECTIONS**

#### **53. PURPOSE**

Tactical and training inspections are used by all commanders to evaluate training, to ascertain readiness of units for field service, and to remove obstacles to training. Inspections are required by AR 265-10 and can be formal or informal.

## **54. TACTICAL INSPECTIONS**

Tactical inspections include the actual solution of tactical and field firing exercises. They are normally provided for in the final weeks of a unit training phase. As far as practicable, these exercises are executed at maximum strength, equipment, and transportation.

## **55. TRAINING INSPECTIONS**

Training inspections include analysis of the current training program and observation of scheduled training—drills, exercises, assemblies, and conferences. Routine or scheduled duties of troops normally are not interrupted. Formal exercises and tests may be scheduled when observation of the current training activities indicates serious deficiencies in training, or when the commander desires to evaluate unit or individual proficiency in particular subjects. In this case, proficiency in advance of that required by the current training program is not tested.

## **56. TESTS**

Generally there are two categories of tests conducted within a unit—

*a.* Tests conducted by an instructor to evaluate the effectiveness of his instruction (par. 123).

*b.* Tests directed by a commander to evaluate training progress, determine deficiencies, or to prepare for tactical inspections by higher commanders. An example of a training test is the Expert Infantryman test.

## **Section IV. DAILY SUPERVISION OF TRAINING**

### **57. GENERAL**

Daily supervision of training is the informal day-by-day training inspection made by the commander or his representative. It comes within the scope and intent of AR 265-10. This supervision occupies a major portion of the commander's time and gives him continuous knowledge of the training situation. With this knowledge he directs training toward the accomplishment of his unit mission.

### **58. PLANNED SUPERVISION**

*a.* A good training officer does not just happen to observe a particular bit of training. He has a plan and follows it. He schedules his visits to the various training areas and determines in advance the items to look for when he arrives. Except in the case of formal inspections, he normally does not inform the instructor or the class that he will visit them.

*b.* When the training officer is from a higher headquarters than that conducting the training, he requests the unit commander or a representative to accompany him on the visit. This respects the chain of command, provides on-the-spot correction of errors, allows the unit commander to justify his methods when appropriate, and eliminates the need for correspondence later to inform an absent commander of the conditions noted.

*c.* A check list assists the training officer in observing the training; it insures thoroughness and accuracy. It may be a few notations in a pocket notebook, or it may be in a standard check list form.

*d.* As soon as possible after an inspection, the training officer consolidates his notes. He uses them in individual and group critiques conducted to improve training. He keeps his notes to guide him in planning his next visit and to record daily progress of his units.

## **59. GENERAL RULES FOR THE SUPERVISOR**

*a.* There are certain general rules that a training officer follows carefully to make his visit most beneficial to the unit, and to cause the least possible interference with the class and the instructor. These rules are based on common sense, courtesy, and a sincere desire to improve training. The training officer's principal interest is the total effect of the training. This study is more important than numerous checks on instructor performance.

*b.* When the training is in the field, the training officer approaches in a manner that is least likely to distract the class's attention. When the training is indoors, he enters quietly and demands no recognition from the students or the instructor. The instructor does not call the class to attention nor interrupt the training in any way. The training officer does everything he can to keep the training situation exactly as it was when he arrived. It may be appropriate for an assistant instructor, not otherwise engaged, to orient the training officer.

*c.* The training officer first notes the general impression he receives of the class. While he is conscious of the many details that make up his general impression, he avoids placing too much importance on any one detail. He keeps in mind that his aim is



to determine the general effectiveness of the training.

d. While the training officer is in the class area, he is careful not to call attention to himself by rattling papers, looking at his watch, or giving the students the impression that he does not like the instructor's work. He avoids taking notes when the students or instructor can see him. They are sure that a note taken in a class is a bad indication.

e. The training officer normally refrains from interrupting the instructor. To do so may have a damaging effect on the instructor's morale and assurance, and may cause the soldiers to lose confidence in him as a leader. To avoid serious error, however, it might become necessary that the training officer take over the class. If he does this, he takes definite action to repair any damage that he has caused to morale. At times, the training officer enters into the instruction to drive home a point or to reinforce the instructor in answering a question. *Supervision of training plans and careful selection and training of junior leaders usually obviates the necessity for interruption.*

f. When circumstances permit, the training officer observes the complete period of instruction. Through such visits, he gets more than just a fragmentary view of the instruction and is better able to discuss with the instructor the quality of the training.

g. The training officer's attitude toward the instructor is one of assistance. Between the training officer and the instructor there should be a feeling of mutual concern for improving the training. Inspections and visits should lead to conferences that deal objectively with the training. Criticism is con-

structive. Some rules to assist the training officer in presenting constructive criticism are—

- (1) Always criticize in private.
- (2) Ask questions to get the instructor's point of view.
- (3) Bring out the good points of the training first to give the instructor confidence and to increase his receptiveness to criticism.
- (4) Explain how a different approach to the training problem will better qualify the instructor's unit, or class, in the subject being presented.
- (5) Briefly and clearly point out training errors.
- (6) Suggest a practical method of correcting these errors.
- (7) Dismiss the instructor with a statement showing confidence in his ability to make the corrections and to conduct more effective training in the future.

# **PART TWO**

## **CONDUCT OF INSTRUCTION**

### **CHAPTER 4**

#### **THE INSTRUCTOR**

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#### **Section I. FUNDAMENTALS OF MILITARY INSTRUCTION**

#### **60. GENERAL**

Part One covers the commander's planning and supervision of training; Part Two covers in detail the methods used to conduct training. It explains two general human activities in military training—the teaching and the learning. The *teaching* activity is the instructor's efficient transmission of knowledge, skills, and attitudes; the *learning* is the soldier's ability to absorb, retain, and use the knowledge, skills, and attitudes taught.

#### **61. THE INSTRUCTOR'S JOB**

a. One of the basic duties of every leader is to instruct. An officer or a noncommissioned officer can expect to spend a great part of his military career instructing. He can become an effective instructor by studying and understanding the fundamentals that govern military training, by developing the traits of an effective instructor, by practicing the

teaching techniques and methods of instruction covered in this manual, and by achieving or improving his ability to instruct.

*b.* In teaching, the major consideration is *effectiveness*. The results of teaching must be evaluated by the question, "What did I want the men to learn? Did they learn it?"

*c.* The mission of the instructor is to make training *efficient and effective*. It is possible for men to learn effectively without an instructor but, usually, this learning is not efficient. When training is conducted without close supervision there usually is a loss in efficiency of the training.

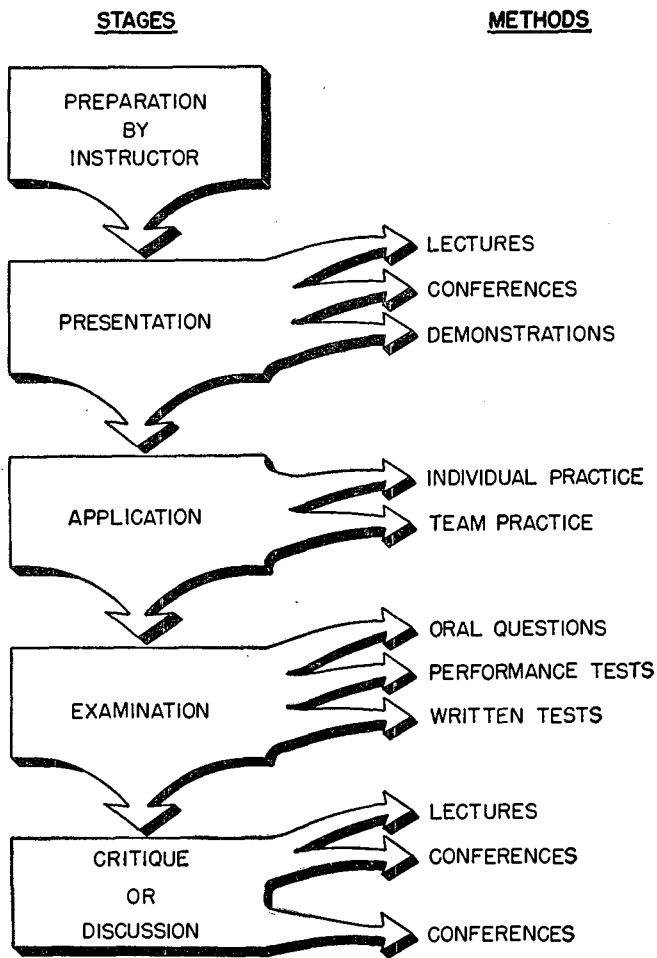
## 62. THE LEARNING PROCESS

Learning is the aim of all training. When the men have not learned, the instructor has failed in his mission.

*a.* Men must have the desire to learn. In wartime they will be more eager to learn than in peacetime because the reasons for learning are more apparent. In either case, the job of the instructor is to help the soldier find this desire to learn.

*b.* Men learn through the senses—sight, hearing, touch, smell, and taste. To help the soldier better understand the subject, appeal to as many of these senses as practical during instruction.

*c.* Men learn by doing; there can be no learning without some activity by the soldier. The best activity is for him to practice doing the job that he is expected to learn. Proper supervision of this practice is necessary to insure correctness of the learning.



*Figure 7. Applicatory system of instruction.*

## 63. THE APPLICATORY SYSTEM OF INSTRUCTION

This system, shown in figure 7 and explained in the following chapters, is based on the learning process. It is divided into stages to help make the learning effective and efficient. These stages are—

*a. Preparation.* The product of preparation is the lesson plan. It is the blueprint for instruction.

*b. Presentation.* This stage includes the telling and the showing to give the soldiers enough background for the doing.

*c. Application.* Here the soldier practices, under supervision, what he has been taught.

*d. Examination.* In this stage the soldiers' progress is evaluated.

*e. Discussion or Critique.* In this stage, the instruction covered is reviewed and clarified.

## 64. INDIVIDUAL DIFFERENCES OF SOLDIERS

Military training develops the individual and teaches him to work on a team. The instructor must learn to recognize the individual differences of the men in his unit, and use these differences to the advantage of training. Some of these differences are—

*a. Physical Characteristics.* The physical demands of military training vary. Minor differences may place some men at a disadvantage. Often this can be remedied by making allowances for these differences in conducting the training.

*b. Emotions.* Individuals are different in their emotional approach, and their attitudes vary from day to day. Patience and understanding on the part of the instructor will help the worried or homesick

recruit to concentrate on his training. Encouragement builds confidence in the timid or retiring man. Ridicule or sarcasm makes his emotional problems worse.

*c. Intelligence.* A soldier's basic intelligence indicates how much he can learn, and the rate at which he can learn it. The instructor needs to determine how rapidly the soldiers can best learn a subject. As a rule, the training that will reach most men, including those of least ability, is that done by application.

*d. Experience.* The soldier's previous experience is important to him in military training. To help him learn new subjects, every opportunity should be taken to build on what he already knows.

*e. Desire to Achieve.* The desire to reach a definite goal is one of the most important factors affecting a soldier's learning. In any group, this desire will exist in individuals to varied degrees. Lack of determination or desire results in poor learning regardless of a soldier's other characteristics. Therefore, be alert to opportunities to increase his desire to progress and to become more skilled. Show him why his progress in military training is worth while. Stimulate his interest. Show him that he can learn. A knowledge of the value of training, and confidence in his ability to learn, makes a man want to learn.

## **65. ADAPTATION OF INSTRUCTION TO INDIVIDUAL DIFFERENCES**

The following rules will assist in adapting instruction to individual differences of the men:

- a.* When the training situation permits, let each man progress at his own speed.
- b.* Encourage each man to work up to his capacity.
- c.* Provide as much individual instruction as the time and the size of the group allows.
- d.* Have the better learners coach the slower ones.
- e.* Give outstanding soldiers special assignments.
- f.* When it does not interfere with team training or does not reflect unfavorably on any one group, organize the soldiers according to their abilities.

## **66. ASSISTANCE TO THE SUPERIOR SOLDIER**

*a.* The ambitious soldier can step out ahead. He is not content with knowing the army's present organization; he wants to know the history of its development. It is not enough for him to read a map; he wants to know how the map is made. Take advantage of this and help develop him to the extent of his capacity.

*b.* Encourage him to progress beyond the minimum training requirements. Advise him on planning individual study, and assist him in getting study materials. When a personal interest is shown in his progress, he will work even harder.

## **Section II. TRAITS OF AN EFFECTIVE INSTRUCTOR**

### **67. GENERAL**

The traits of an effective instructor are basically the traits of a leader. This section covers the application of these traits to an instructor's job.



## **68. KNOWLEDGE AND JUDGMENT**

*a.* An instructor must know his subject for he can train others only in what he knows. He must increase his knowledge of a subject beyond any one text. He should discuss the subject with other experienced persons, and base his reading primarily on manuals, circulars, and other official publications. Then he should increase his knowledge by studying professional magazines and current books. Besides knowing his subject, he must know instructional methods, the soldier's needs and capabilities, and the lesson objective.

*b.* Judgment must be used in applying knowledge to military ends—in choosing what to teach and how to teach it. Estimate the teaching situation and plan a lesson that effectively teaches the soldiers those skills and techniques required by the unit training mission.

## **69. TACT**

A soldier irritated or ridiculed, closes his mind to instruction. Vulgarity or crude jokes may cause resentment. An artificial tone of voice, unpleasant expressions, a series of don'ts, all create annoyance. Talking down to a class defeats learning. When the instructor is friendly and natural, there is little chance of offending the listeners.

## **70. ENDURANCE AND INITIATIVE**

Teaching requires hard work and real determination. It is not a routine mechanical procedure. Different subjects, different classes, or different situa-

tions call for different methods. The most valuable assets of an effective instructor are mental capacity, the willingness to work hard, and the ability to use new training ideas.

## **71. BEARING**

An instructor must be military in appearance and conduct, for he sets an example to the soldiers he teaches. Uncontrolled gestures or exaggerated statements must be avoided. Soldiers respect a precise, neat, confident instructor who has something to say and says it.

## **72. ENTHUSIASM**

Put enthusiasm into training to make it alive and effective. Enthusiasm is the outward expression of the instructor's interest in his subject, and of his real concern about the soldier and his progress. Enthusiasm is contagious. When the instructor shows that he wants to teach the subject and is interested in it, the troops accept that evaluation of the subject's importance.

## **73. EXPRESSIVENESS**

The instructor should review his method of expressing himself and correct any poor habits he might have. He should improve his ability to express his thoughts effectively by practicing the techniques explained in paragraphs 167-190.

## **74. SUMMARY**

The personnel being trained will quickly sense meaningless words, manner, thought, of slipshod instructions; they will lose confidence in the leader who so conducts training. On the other hand, troops reflect sincere efforts by trying harder to learn. Therefore, the instructor must take an interest in their learning, know his subject and believe in what he says.

## **CHAPTER 5**

### **PREPARATION BY THE INSTRUCTOR**

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#### **Section I. GENERAL CONSIDERATIONS**

##### **75. SUBJECTS**

The unit training program includes instruction in all subjects considered essential to accomplish the training objective (par. 44).

##### **76. LESSONS**

Each subject consists of several subdivisions or lessons. A lesson is one instructional unit, or a part of a subject. For example, the subject Elementary Map and Aerial Photograph Reading may be subdivided into several lessons. One lesson may be on introduction to maps, another on map coordinates, a third on direction, and so on to complete the subject (app II). This chapter tells how to prepare one lesson.

##### **77. STARTING POINT**

Upon being directed to conduct a course of instruction, check the unit training schedule for detailed information. The training schedule gives an overall picture of what is to be done, who is to do it, and when and where it is to be done. It serves as a starting point for preparing the lesson.

## Section II. STEPS IN LESSON PREPARATION

### 78. PLAN OF ACTION

To utilize the time available for lesson preparation to best advantage, make an estimate of the teaching situation by determining what to do and how to do it. Then—

- a. Keep the objective firmly in mind (par. 79).
- b. Collect the necessary material (pars. 80 and 81).
- c. Write the lesson plan (par. 82).
- d. Rehearse and revise the lesson plan (par. 83).
- e. Check the final arrangements (par. 84).

### 79. OBJECTIVE

The instructor must know the lesson objective. He must know from the start *what* he is to do and *why* he is to do it. He must consider the objective in terms of what each soldier is expected to learn from his instruction. Everything he says or does in the presence of his class is determined by the objective for that lesson.

a. Make the objective specific, as definite and clear-cut as the bull's-eye on a target. An objective stated in broad terms like, "*the automatic rifle, cal. .30 M1918A2*," is too general. A complete field manual covers that subject. *To introduce the soldier to the automatic rifle, cal. .30, M1918A2, and to teach him how to disassemble and assemble the operating group*, however, is a lesson objective that clearly defines what is to be done. The instructor then knows that he is *to introduce* the automatic rifle to the soldier and *teach him how* to disassemble and assemble the operating group. The objective is specific.

b. A good lesson objective is practical and reasonable. It insures that the task is no larger than can be accomplished with the time, personnel, equipment, and facilities available.

## **80. INFORMATION AND MATERIAL**

After determining what to do, the instructor finds out what material he has available to assist him. A systematic method is to gather information and material from the training schedule, personnel records, training publications, listings of training aids and facilities, and other general sources.

a. Check the training schedule to get the following information:

- (1) Time for preparation.
- (2) Length of the lesson.
- (3) Who is to be instructed.
- (4) Where the instruction is to be conducted.
- (5) Uniform and equipment.
- (6) Specific material to be covered as shown by the references.

b. Normally, the instructor knows the background of the troops he is to instruct. If not, he can review the unit personnel records to determine previous military training experience, schooling, length of service, present assignment, and other data concerning the students. The needs of recruits are different to the needs of noncommissioned officers. For example, it is a waste of time to introduce recruits to advanced tactics when they have not had previous tactical instruction. On the other hand, that approach may be suited to teaching noncommissioned officers. The more the instructor knows about his

class the better he can slant his instruction to fit its needs.

*c.* The unit file of field manuals, technical manuals, training circulars, bulletins, subject schedules and prepared lesson plans is the main source for subject material. Check the references listed in the training schedule to determine what material to cover. Be sure the training references used are up-to-date. In addition, use other reference sources such as service magazines, books, training films, film strips, personal experiences, and associates' experiences.

*d.* Decide what training aids and facilities are needed, and make arrangements for having them in time for the instruction period.

## **81. STUDY**

Having gathered the necessary information and material, study and analyze it.

*a.* Study the material to develop a good understanding of the subject. Then, analyze it to select the most important points around which the lesson can be built. Always keep in mind the lesson objective, the available time, and the materials.

*b.* Make every effort to select only the essential material and to eliminate the nonessential details from the lesson. The tendency to try to cover too much material in too little time results in poor instruction. Concentrate on the objective. Remember that a soldier's learning capacity is much more limited than the instructor's talking capacity.

*c.* To assist in saving time and getting the most out of the lesson preparation, the following suggestions are listed for improving study methods:

- (1) Understand what is to be done.
- (2) Develop a time-and-place habit for study.
- (3) Insure that conditions are right for working. Check for adequate light, air, and heat.
- (4) Have all necessary materials, texts, and references at hand.
- (5) Begin work promptly.
- (6) Mentally review the preceding lesson, look over the current lesson objective, and jot down any ideas that occur.
- (7) Get a quick over-all view of the subject matter by quickly checking the subject headings in the references. Then, read through and center attention on the important details. Make any notations that will help you fix ideas in mind.
- (8) Keep at it. Concentrate. Allow no lapses of attention.

## **82. LESSON PLAN**

*a.* A lesson plan is a written digest of how the instructor is going to teach a particular lesson. It shows what material to teach, in what order to teach it, and exactly what procedures to use. Each lesson plan covers one small segment of a subject.

*b.* In effect, a lesson plan is a guide to help accomplish the teaching mission. It helps to cover each part of the lesson so that it makes sense to the soldier.

*c.* Ready-made lesson plans to work from may be found in the unit's training files. The ready-made lesson plan is intended to be used as a guide to assist the instructor in lesson preparation. He should



use it word for word or step by step, but he should adapt it to the particular teaching situation and write his own plan in his own words. How to write a lesson plan is discussed in section III of this chapter.

### **83. REHEARSALS**

The purpose of rehearsing is to perfect the instruction before actual class presentation.

*a.* At first, just certain parts of the lesson such as the introduction, demonstration, or summary may be rehearsed. As soon as possible, however, stage a complete rehearsal. Like a dress rehearsal for a play, make it complete in every detail. Arrange for a suitable class area, equipment, facilities, training aids, and assistants. For example, when a training film is a part of the plan, include it in the rehearsal. Have the projectionist present so that he will know where to set up his equipment, where the light plugs and switches are, when the lights go out, and when he is to start the film.

*b.* Preview the instruction before a "test class" of at least two or three persons who will give constructive comments. Encourage them to comment on the over-all effectiveness of the instruction so that it may be improved.

*c.* As a result of the rehearsal, revise the lesson plan, where necessary, to make the instruction more effective. Failure to rehearse results in incomplete or sketchy instruction, loss of interest, and the waste of time. On the other hand, frequent rehearsals conducted correctly help to develop self-confidence and ease in presenting the lesson, and help to accomplish the objective in the allotted time.

d. If there isn't sufficient time for a full rehearsal, talk through the training with the assistants, conduct an abbreviated rehearsal, or rehearse alone. At least go over the main points and fix the plan in mind before presenting the lesson to the class. *The spirit of the rehearsal is the thing that counts.*

## 84. FINAL ARRANGEMENTS

The last step in preparing the lesson is to check and recheck the many details related to carrying out the lesson plan. A list of the details to be checked follows:

a. *Class Area.* Make every reasonable effort in advance to see that the class area and its surroundings are conducive to learning. Check to see that there are no last minute conflicts, or other demands for the same area. Check the conditions of the facilities in the area, such as exhibits, pits, and blackboards. Check the seating arrangement to make sure that everyone can see and hear and have an unobstructed view of the training aids. Check the area for neat and orderly appearance. Check for possible sources of distracting noises or commotion in the immediate vicinity (fig. 8).

- (1) When indoors, check for interest destroying factors such as too much or too little heat, not enough fresh air, improper lighting, and poorly arranged chairs or benches.
- (2) When outdoors, check to see that the sun will not shine in the soldiers' eyes. Take advantage of shade. Check to see that the wind will carry the sound of the voice toward the class.

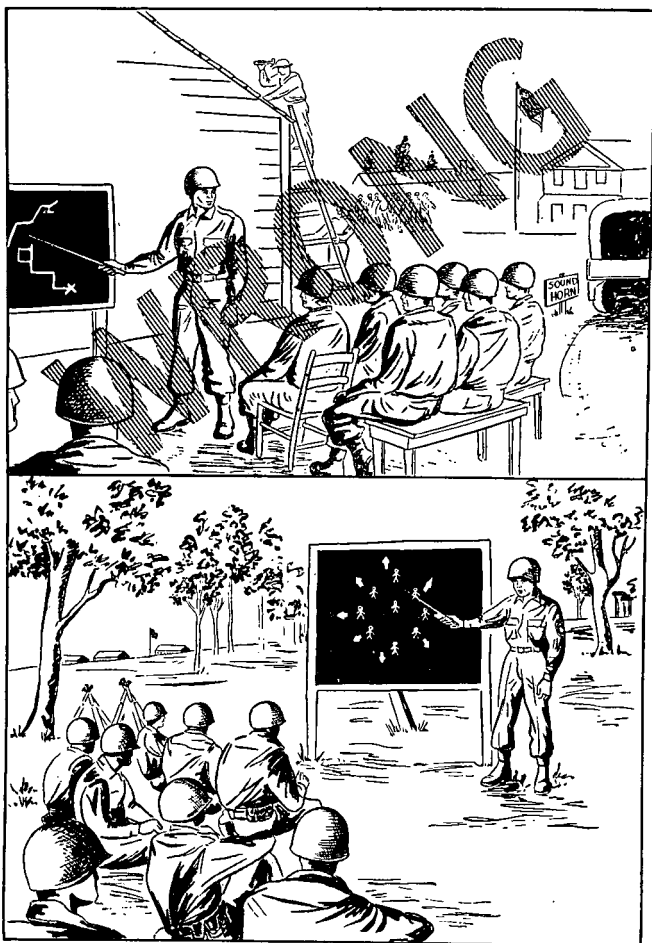
*b. Training Aids.* Check to see that all training aids are where they are supposed to be and that they are set up correctly. Check the plans for covering them from view when not in use. When using film strips, slides, or training film, check the equipment, including the electrical outlets and length of cord. When using a blackboard, check to see that it is clean, and that chalk and an eraser are available. When using working models, see that they are functioning properly.

*c. Assistants.* Whether they are to be used as assistant instructors, demonstrators, guides, or operators of special equipment like projectionists, see that the assistants understand exactly what they are to do, and when they are to do it. Also, check them for equipment, uniform, and appearance. It is best to issue special instructions in writing to the assistants, and then check to see that they understand them.

*d. Special Material.* For practical exercises, check the condition and quantity of special equipment, weapons or tools that are to be used. For example, when maps or firing tables are required, check to see that the correct type and number are available.

*e. Transportation.* Check to see that the necessary transportation is ready. Check the time required for going to and returning from the class area. Check the route and orient the drivers as to what they are to do, where they are to go, and how they are to get there.

*f. Coordination.* Check for last minute changes in schedules or plans. When applicable, coordinate essential details with instructors in adjoining areas or



*Figure 8. Examples of poor and good training sites. The site chosen should be free from distractions and close to an area where practical work can be done.*

those using the same area immediately before or after the class.

*g. Instructor's Needs.* See that an accurate class roster is available when one is required. Check personal appearance. Anything left to chance usually goes wrong. Leave nothing to chance.

### **Section III. WRITING AND USING THE LESSON PLAN**

#### **85. CONTENTS OF A LESSON PLAN**

The details of the lesson plan will change from one teaching situation to another depending on the purpose and nature of the lesson. A good lesson plan has two general parts. The first part lists information the instructor must know about the lesson. The second part is an outline of how he will conduct the lesson.

*a.* The first part includes the lesson title, the scheduled date and time, class area and designation, number or names of assistants, text references, equipment and training aids, uniform, transportation, rehearsal plans, and the lesson objective. Under-score the lesson objective as a reminder of the teaching mission and to emphasize its importance. This part serves as a handy administrative check list. It briefly covers in convenient form the what, when, where, who, and why of the lesson.

*b.* The second part, the Lesson Outline, includes the subject matter and methods to use in each stage of instruction, notes on the use of training aids, questions for discussion, guides for demonstration and any other matters to assist in conducting the lesson.

## 86. SAMPLE LESSON PLAN

Figure 9 shows a sample lesson plan for a particular teaching situation. It includes the necessary information to conduct a 1-hour period of instruction on military maps and conventional signs. The lesson outline includes several ideas for the introduction, including a proposed question, an outline of detailed plans for developing each main point of the lesson, indications of proposed timing, notations on training aids, and a brief draft of a closing statement.

## 87. CHECKING THE PLAN

To insure that the important points have been considered in developing the lesson plan, the instructor should be able to answer *yes* to each of the following questions. When he cannot answer *yes* to any question, it shows that some phase of the preparation has been inadequate, and that the plan should be revised.

- a.* Does the lesson deal with one subject only?
- b.* Is the lesson objective stated clearly and concisely?
- c.* Are all facilities and equipment listed necessary and available?
- d.* Does the introduction serve all of its purposes?
- e.* Do the steps in the lesson proceed from known to unknown, from simple to the complex?
- f.* Are the facts of the lesson important to this particular class at this stage of its training?
- g.* Is the number of new ideas included in the lesson small enough to be understood by this particular class in the allotted time?

## LESSON PLAN

Title of Lesson: MAPS: Introduction, Conventional Signs, Military Symbols.

### Essential Information

Day and Date: Wednesday, 13 April Hours: 0740-0820  
Place : Area M Class: 2d Plt., A Co  
Instructor : Sgt. You Assistants: A.N.G.  
Uniform & Equipment: B  
References : FM 21-25, Dsg 1-24  
Training Aids: Blackboard, chalk, erasure, pointer, five tactical maps, road map.  
Rehearsal : 111630 Apr. Area M. Transportation: A-I to  
LESSON OBJECTIVE: To introduce military maps to the soldier and to familiarize him with standard conventional signs and military symbols.

### Lesson Outline

1. Introduction ( 5 min)
  - a. Importance of having maps and being able to read them.
    - Q. Why learn to read a map?
    - A. (Develop answer by class discussion.)
    - (1) To help find your way.
    - (2) To help stay alive.
    - (3) To keep the men you are leading safe in combat.
  - b. Purpose of this period of instruction.
    - (1) To introduce you to military maps.
    - (2) To familiarize you with standard conventional signs and military symbols.
2. What IS a map? ( 3 min)
  - a. It's a picture of the land and the things people have built on the land.
  - b. It's a view of things from directly above; compare to viewing football game.
  - c. It's a picture, but it's not a photograph.
3. What's ON a map? ( 5 min)

- a. Explain purpose of signs and symbols.
  - b. Illustrate on blackboard similarity between the marks on a map and diagram of a football play.
- (15 min)
4. What's a Conventional Sign?
    - a. Why, how, and when they are used.
    - b. Illustrate on blackboard conventional signs resembling the real object--buildings; those accenting one feature of the object--barbed wire fence; those using an associated idea--church; those not similar to the object--intermittent stream.
    - c. Organize class into equal groups each with an assistant instructor and a tactical map. Direct instructors to have individuals locate and identify features on map just illustrated on blackboard, and then explain to group and have individuals locate all of the other common conventional signs.
- (2 min)  
(15 min)
- (Stretch break)
5. What's a Military Symbol?
    - a. Explain why, how, and when they are used.
    - b. Draw common military symbols on blackboard and explain how they can be remembered by an association of ideas.  
(Erase blackboard.)
    - c. Redraw symbols one at a time; call on a soldier to identify symbol as it is drawn.  
(Erase blackboard.)
    - d. Direct class to use pencil and paper; call out a symbol by name, have soldiers draw it on paper; assistant instructors check each man's work.
- (5 min)
6. Summary
    - a. Clarify any points believed not understood by class.
    - b. Closing statement: Remember, a map is a picture. It isn't a puzzle and it isn't hard to read. In combat you must know how to read and use a map if you want to stay alive. Conventional signs and military symbols make a map easier to read and use. This morning, you were introduced to military maps and familiarized with standard conventional signs and military symbols. You have completed the first step in learning how to read and use a map in combat. During the next period we will discuss map coordinates, distances and scales.
- (Dismiss class: 0820.)

Figure 9. Example of a lesson plan.



*h.* Has the relative difficulty of each teaching point been estimated?

*i.* Is the sequence of the teaching material arranged so that it has meaning from the learner's point of view?

*j.* Is the time distributed properly?

*k.* Are the teaching methods suited to the subject material and to the class?

*l.* Is emphasis placed on the important points?

*m.* Is the plan complete or does it leave anything to chance?

*n.* Is the plan simple, flexible, and practical?

*o.* Does the plan satisfy the lesson objective?

## **88. USING THE PLAN**

The lesson plan is the guide for conducting the class. Add to it as many illustrations and practical applications as possible to meet the needs of the particular class.

*a.* No matter how careful the planning, it is impossible to predict the reactions of different classes. An approach that has been successful with one group of soldiers may not be equally successful with another. When the instructor finds that his planned procedures are not leading to the desired results for the class, he should take advantage of the flexibility of his plan and change his approach to fill the needs of that particular class.

*b.* No two teaching situations are identical. If the same plan is used repeatedly it will lower teaching efficiency. The instructor must be as alert to differences in classes and training situations as he is to changes in the tactical situation when in combat, and alter his plan to meet each situation.

*c.* Lesson plans are valuable as references for revising, coordinating and improving instruction. They are also invaluable as basic references for preparing tests, as guides for a substitute instructor, and as assistance in providing an alternate training plan in case of inclement weather.

*d.* During instruction, a copy of the lesson plan may be used for reference (fig. 10). Adding special notes in the margin, and underlining, circling, or drawing boxes around important items will help the instructor in following the plan from start to finish of the lesson.

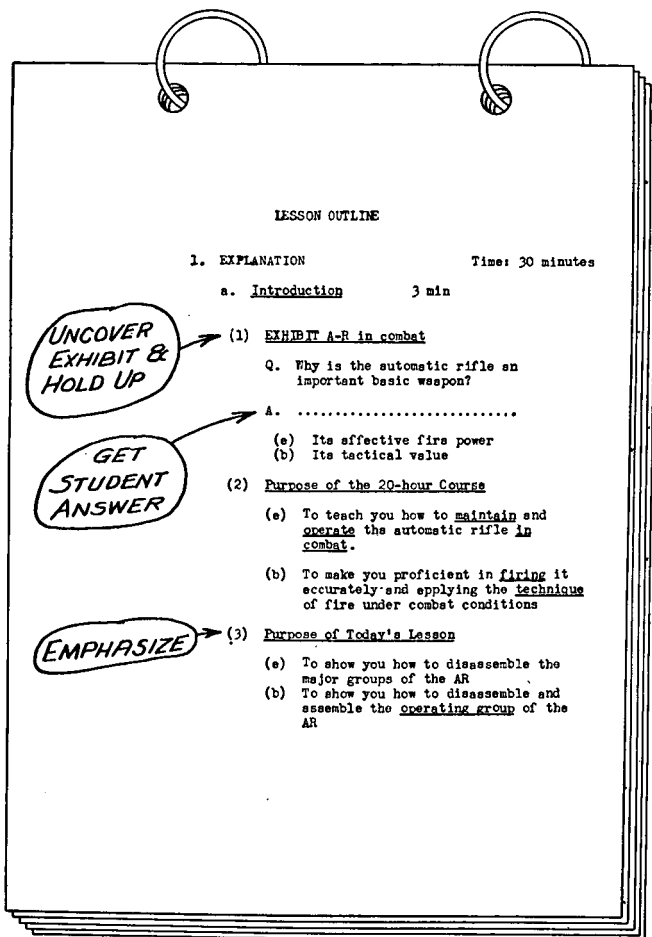


Figure 10. Use of lesson plan as reference during instruction.

## CHAPTER 6

### PRESENTATION

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#### Section I. GENERAL

#### 89. IMPORTANCE OF PRESENTATION

Presentation normally is the first phase of instruction. It starts the lesson and lays the foundation for its complete development. It is that part of the lesson in which new ideas and information are introduced, explained, demonstrated and summarized to prepare the men for the *doing* stage of instruction. It leads to practical application of the knowledge and skills being learned (fig. 11). The instructor should be careful to minimize his oral instruction and encourage participation by the soldiers.

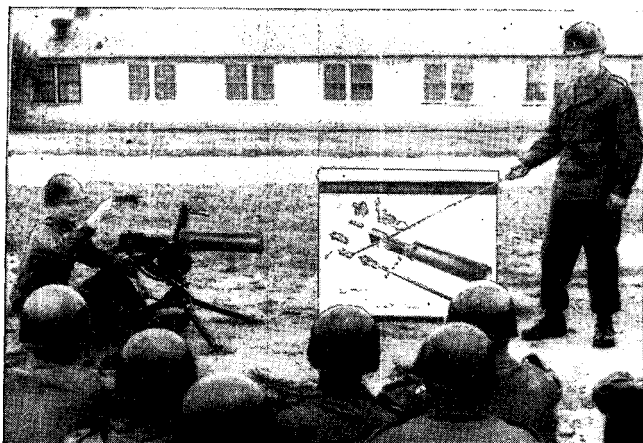
#### 90. METHODS OF PRESENTATION

Presentation can be in the form of a lecture, a conference, a demonstration, or any combination of these. However brief the presentation may be, it must *always include an introduction and a summary.*

#### Section II. THE INTRODUCTION

#### 91. PURPOSES

The introduction prepares the soldier's mind for the instruction. Opening the soldier's mind to in-



*Figure 11. Explanation and demonstration of new material.*

struction may be compared to walking into a house—the door must first be opened. The introduction does this by arousing his interest in the lesson, by showing its relationship to his previous experiences or training, and by clarifying the lesson objectives.

## **92. AROUSING INTEREST**

*a.* Normally, the instruction is begun by arousing the soldier's interest in the subject. During the first moments of the presentation the men usually are curious about the lesson. This attention is soon lost unless their interest is aroused.

*b.* Time taken to arouse interest in the subject is well spent especially when the subject matter requires it. It increases effectiveness by making the men want the training. The military instructor can demand attention, but real interest comes from with-

in the men. When they feel a need for the training they are interested.

c. Make the men feel a need for the instruction by showing why it is important to them. Do this by showing the lesson's relation to their advancement, personal safety, or getting the recognition and approval of others. Use combat examples.

d. Other means of arousing interest are—a striking fact, a startling statement, a familiar incident, a novel quotation, or a humorous story, when it leads logically to the next remarks.

### 93. RELATIONSHIP TO PREVIOUS EXPERIENCES OR TRAINING

a. The instructor should explain to the men the relationship of his instruction to their previous experiences or training. This gives them a jumping-off point into the new lesson. It shows them that the instruction is going to bring them a step nearer their training goal.

b. Relate the subject at hand to old ideas. An entirely new subject may lose appeal when the men cannot associate it with something they know. For instance, suppose the new subject is *camouflage*. When the instructor begins by talking about the difficulty of seeing wild life during the hunting season the class has a jumping-off point. Then, when he asks why olive drab color is used so widely in the army, the word camouflage takes on a familiar meaning to the class. Simple references to common experiences and previous training anchor new ideas to something familiar.

c. Point out that training subjects are all related—they all point toward a definite, common goal. Show

this relationship to the soldier. For example, explain how a period of care of the feet is related to marching. Answer the question, *Why do we use training time for this lesson?*

#### **94. CLARIFYING THE TRAINING OBJECTIVES**

The men should be instructed as to the over-all training mission and the exact objective of each part of the training. The lesson objective should be explained so that each man understands exactly what he is expected to learn and what standards are to be achieved.

#### **95. CAUTIONS**

*a.* In the introduction, show that the lesson objective is within each man's ability. Avoid setting the lesson goals so high that they seem beyond the reach of some men.

*b.* Make the introduction short. The length should be limited by the subject, the men, and their previous instructions. The instructor should ask himself, *Have I prepared their minds for the lesson?*

### **Section III. THE LECTURE**

#### **96. GENERAL**

*a.* The lecture is an oral presentation of subject matter to the class. Its success depends on the instructor, on his personality, his speaking ability and his preparation—and on the soldiers' previous experiences and their ability to think in terms of what the instructor is saying.

b. Illustrate the lecture and make it brief, interesting, and understandable. Confine it to one subject. Illustrated lectures increase the teaching value. Use a lecture to present subject matter that is new to the soldiers. Always conclude the lecture by summarizing its main points.

## **97. ADVANTAGES**

a. In a lecture, the instructor can present his ideas concisely and logically, and at the speed he desires. By using a public address system, he can talk to any size audience.

b. At the start of a course, orient soldiers with a lecture. Use it to bring men with varied backgrounds to a common understanding of a subject, or to familiarize them with background material in broad subjects like the Articles of War, personal hygiene, and military courtesy. Also use the lecture to prepare the way for demonstration, practical work, examination, and discussion that follow.

## **98. LIMITATIONS**

The class does not actively take part in a lecture aside from thinking. The instructor may become so interested in what he is saying that he forgets the listeners. He may not realize that he is presenting the material more rapidly than the men can absorb it. He should keep his talking rate down to the class ability to follow.

## **99. ILLUSTRATIONS**

Use blackboards, diagrams, maps, charts, pictures, films, item of equipment, models, and sand tables to



help give the lecture meaning. Illustrate the oral instruction to make it more effective.

## **Section IV. THE CONFERENCE**

### **100. GENERAL**

In a conference the instructor directs an oral discussion in which the soldiers take part. The conference may be used for exchanging or developing ideas on subject matter that the class has already studied or for introducing facts and ideas that will be readily accepted by the men. It gives the instructor a chance to ask questions, to develop the ideas of the lesson, and to find out whether he is getting those ideas across to his class. He should encourage the soldiers to ask questions and express their opinions to increase their interest and require them to think.

### **101. CONDUCTING A CONFERENCE**

*a.* A conference requires special care and consideration. Prepare, in advance, the principal questions, problems, and points for discussion. Anticipate the control of soldiers who will ask questions not related to the subject and those who ask questions merely to show off their knowledge.

*b.* To start the two-way flow of ideas use a question, a story, a brief explanation, or a simple demonstration. Use prepared questions to keep the conference alive and pointed toward the lesson objective. Encourage all soldiers to participate. Keep the exchange and development of ideas on the lesson at hand. When a man tries to talk about things that do not pertain to the lesson, tactfully summarize his

comments and get the class back to the central idea. Whenever the conference is complete on one question, summarize very briefly the point developed and go to the next.

*c.* Save enough time at the end of the conference to summarize the important points that have been covered and the principal ideas that have been developed. End with a summary that leaves the class with a clear-cut idea of what it has been discussing.

## 102. QUESTIONING TECHNIQUE

Questioning technique is applicable to all stages of instruction. However, much of the success of the conference depends on skill in questioning. It is the soldier who is developing the idea; the instructor guides the development so that it is purposeful and progresses toward the lesson objective. It is better for the instructor to ask questions than to answer them. When a man raises a question, get another soldier to give the answer.

*a.* In a conference questions are used to—

- (1) Maintain interest.
- (2) Direct the thinking of the group.
- (3) Lead the men in analyzing the steps of a process.
- (4) Discover individual strengths and weaknesses in learning.
- (5) Determine the class' understanding of instructions.
- (6) Test the effectiveness of the instruction.

*b.* Make certain that each of the questions has a specific purpose. Raise a definite question involving the main points already covered to determine

if the men really understand the instruction. Avoid asking aimlessly, *Are there any questions?*

c. Make sure that all men understand the question. Use language they know. When they do not understand the question, rephrase it.

d. Use questions that carry the class toward the lesson objective, that emphasize only one point at a time and require a short, definite answer. For example—instead of asking the question, "*Name the main features of a fuel supply system?*" ask "*Why is the carburetor necessary on a gasoline engine?*"

e. In general, make all questions thought questions. Avoid questions that demand only the memorizing of phrases from the text. When a man answers a question by *yes* or *no*, ask him *Why?*

f. Ask the question before indicating who is to answer it. In that way the question is a challenge to all who are present, instead of just to the one person who is called on. For variety, tell everyone to write the answer to the question; then call on one of the men to read what he has written.

g. When a soldier gives an answer, or expresses an opinion, ask another soldier to evaluate it. Then approve or modify his evaluation. Compliment soldiers when their work is particularly good.

h. During the conference, be sure that each man can hear and understand what is going on. Have the soldiers sound-off when they speak; to repeat their words too often slows the flow of ideas.

i. When the instructor is asked a question he cannot answer, he should state that he does not know the answer but he will find out what it is. After the lesson period he then gets the answer and gives it to

the class as soon as possible. When a man in the class, or one of the assistants, can answer the question, the instructor tells him to do so.

*j.* The instructor should not allow the over-eager or the talkative soldiers to answer all the questions. Use them, if necessary, to get the others talking, but have a roster or some other means to distribute the participation.

### **103. ADVANTAGES OF A CONFERENCE**

*a.* Conferences stimulate interest. Each man feels that he is taking an active part in the lesson even though he may not ask a question or express an opinion. He listens attentively and thinks the subject through.

*b.* Conferences help men to understand. The man who talks about a subject is organizing his knowledge of the subject. The expression of ideas by others in the class allows him to see the subject from many sides.

*c.* Conferences allow the instructor to correct wrong learning on the spot. He can evaluate the progress of each man's understanding of the subject and give further explanation of any part of the lesson before going to the next.

### **104. LIMITATIONS OF A CONFERENCE**

Some of the limitations to consider when deciding to use a conference are—

*a.* It requires that the men have some knowledge of the subject for intelligent discussion.

*b.* It takes more time than a lecture.

*c.* The size of an effective discussion group is limited. The smaller the group is, the more effective

the instruction. A group of forty is about the maximum number for an effective conference in the field. For additional information on the conference and other types of discussion methods, see Department of Defense Pamphlet Armed Forces Discussion Leaders' Guide.

## **Section V. THE DEMONSTRATION**

### **105. GENERAL**

Demonstrations are a necessary part of the teaching process. They *show* men *how* things are done, and prepare them to apply knowledge and skills in practical work. They may be executed by individuals or teams. Demonstrations are used to make oral instruction easy to understand, and to set standards of performance.

### **106. PREPARATION FOR THE DEMONSTRATION**

- a.* When presenting a demonstration, be sure that all men can see it.
- b.* Remove possible distractions.
- c.* Rehearse before presenting the demonstration. Include the assistants. A practice run permits a check for accuracy, clarity, and timing.

### **107. CONDUCT OF DEMONSTRATION**

- a.* Introduce a demonstration by telling the class exactly what they are to see and direct their attention to any special points to be watched. Present the demonstration with an accompanying explanation. After the demonstration, tell the class what they have seen. Ask questions on specific points to see that they

were understood. If for any reason the wrong way of doing something is shown, *be sure to follow it with the correct method so the soldier understands the right way.* (Be cautious in the use of "wrong way" demonstrations. Some soldiers will remember that instead of the right way.) After the demonstration have the class practice what they have just seen.

b. Skits or playlets may be used to demonstrate some particular part of the lesson or to show a complete procedure or technique. Present the ideas to the class by having one man or group of men perform as actors. Use humor in the skit to arouse the class' interest. However, use the same degree of preparation, and the same procedure of presentation, as you would for a regular demonstration.

## **108. ADVANTAGES OF A DEMONSTRATION**

The advantages of a demonstration are many, in that it—

- a. Provides an interesting activity.
- b. Appeals to the eye.
- c. Shows correct methods of doing the job.
- d. Brings learning closer to the real work.
- e. Gives the class confidence in the instructor.
- f. Substitutes practical illustration of the subject for talk.

## **109. LIMITATIONS OF A DEMONSTRATION**

The main limitations of a demonstration are the subject itself, time, equipment, and the availability of qualified demonstration personnel. Often these can be overcome by using a training film or other projected aid.

## Section VI. THE SUMMARY

### 110. GENERAL

*a.* The summary or conclusion to a lesson gives the class a feeling of having accomplished the goal set up in the introduction. Summaries can be used throughout the presentation to emphasize the important points of the lesson.

*b.* Use the summary to announce future training on the same general subject. For example, a period of instruction on squad formations may seem incomplete when it does not include the formations recommended for handling civil disturbances. Point out that this phase of the subject will be presented later, naming a date, when possible. The men then can see the plan for later training and can look forward to the completion of the subject.

*c.* Make the summary brief, appropriate, and forceful. A long review is boring and fails to hold the class' attention. Stick to the subject. Leave the lesson objectives uppermost in the soldiers' minds. Conclude the instruction with such enthusiasm that the men want to apply what has been taught. End each lesson with a summary that leaves the class with a clear-cut idea of what the lesson was about.

## CHAPTER 7

### APPLICATION

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#### Section I. IMPORTANCE AND METHODS OF APPLICATION

##### 111. MEN LEARN BY DOING

To acquire skill or to learn a process, the soldier must use his knowledge in practical application. The application stage therefore is the vital part of the instruction. It is the stage of instruction that an inexperienced instructor often slights. The class may have the knowledge, it may have a great desire, but when it cannot apply that knowledge, the teaching job is only partially complete. When practicable, get *doing activity in each lesson*. Each series of lessons on a subject *must* include doing activity for the men to learn.

##### 112. METHODS OF APPLICATION

a. In teaching, combine explanation and demonstration with application. The men being instructed put into practice what they have been told and shown, by actually working, thinking, talking, or writing. The instructor explains a step in a lesson, demonstrates it, and then has the group do it. He may even examine their progress and the effectiveness of his instruction by having them do it (par. 122).





*Figure 12. Examples of individual and team practice.*

b. The instructor can use the application method to instruct individuals or teams (fig. 12). He can use various methods discussed in the following sections, singly, or in any number of combinations. He can use them to give practical meaning and variety to his instruction. Their use is limited only by his imagination and ability.

## **Section II. APPLICATION—INDIVIDUAL PRACTICE**

### **113. GENERAL**

a. In using the individual practice methods, have the soldier apply the fundamental ideas of the lesson as soon as he is ready for practice. For example, explain the compass and demonstrate its use. Then have the soldier apply, under supervision, what was just explained and demonstrated to him.

b. Be sure that every man understands what he is to do. Give further explanation and demonstration when it is needed. The good that comes from individual practice depends largely upon supervision. Hints for instructors are—

- (1) Have the assistants circulate among the men to see that directions are being followed, and to help men having trouble.
- (2) When the majority of the men have missed fundamental points, repeat the explanation and demonstration. When only a few men require additional instruction, the instructor or his assistants give it to them as the work progresses, or the more skilled men work with those who need special help.
- (3) Be sure each step of the procedure is understood before presenting the next one. Ask

questions and observe performance to check this progress.

- (4) After the men have had an opportunity for some practice, raise the standard of performance.
- (5) Judicious use of competition stimulates interest. Have the men compete with each other or with their own previous accomplishment. Avoid embarrassing or discouraging those men who are slower at learning.

#### **114. CONTROLLED PRACTICE**

In controlled practice the individuals of the group are directly controlled and taught the mechanics of the subject step-by-step. For *each step* in controlled practice—

- a.* The instructor explains.
- b.* The instructor demonstrates.
- c.* The soldiers imitate the demonstration.
- d.* The assistant instructors correct the soldiers' work.

#### **115. INDEPENDENT PRACTICE**

In independent practice the man works at his own speed. Most subjects do not permit independent practice until the process has been accurately learned. Independent practice lends itself to drill for speed and perfection. It requires careful supervision by the instructor and his assistants to prevent the learning of faulty habits. Once formed, faulty habits are hard to correct.

## 116. COACH AND PUPIL PRACTICE

Coach and pupil practice is particularly applicable after the introductory steps have been completed. In the coach and pupil method the men are paired off. Acting alternately as coach and pupil, they teach each other the procedure previously explained and demonstrated. Properly applied and supervised, this method teaches the man *to think* as well as *to do*. The coach learns by helping his pupil; this stimulates interest, increases alertness, and teaches him how to instruct. It builds a sense of responsibility and a spirit of cooperation. To use the coach and pupil method—

*a.* Organize the class into groups. Assign an assistant instructor to each group.

*b.* Have the soldiers in each group pair off. In each pair designate a coach and a pupil.

*c.* Describe the first phase of the subject.

*d.* Demonstrate it.

*e.* Give the soldier an opportunity to ask questions. After making sure that all understand the work, have the coaches direct the practice of the pupils.

*f.* The coach explains and demonstrates the work.

*g.* The pupil then does the work.

*h.* The coach corrects errors.

*i.* After adequately covering a part of the instruction reverse the arrangement—the pupil becomes the coach and the coach becomes the pupil.

*j.* The assistant instructors supervise and help the coaches. They point out to the coaches the pupils' errors and have the coaches correct the pupils. In this manner, both coach and pupil learn.

*k.* When using the coach and pupil method, take up only one part of the subject at a time. Trying to apply too much at a time confuses the men.

## **117. PLANNING AND PREPARATION OF INDIVIDUAL PRACTICE**

*a.* Preparation and planning are especially important in the application phase of training. Decide when to use the application method, what facilities and space are necessary, how many qualified assistant instructors are needed, and how much time is required. Secure enough equipment to let each man get the practice.

*b.* When equipment is limited, it is often possible to divide the lesson into simple step-by-step procedures that require a minimum number of items.

## **Section III. APPLICATION: TEAM PRACTICE**

### **118. GENERAL**

*a.* The major objective of team practice is teaching men to do a group mission. Emphasize problems the team will meet in combat. Develop teamwork and leadership by giving the men extensive practice as members of a team. Make this practice progress from easy to hard subjects. Stress accuracy from the start; speed is gained through repetition.

*b.* Team practice follows individual practice. Use a lecture, conference, and/or demonstration before each practice to inform the men exactly what they are to do, how it is to be done, and why it is done that way.

*c.* During team practice the instructor works as an athletic coach; the men are the players. Each

man has learned his individual part; now he performs as part of the team. He works with others to learn his timing, correct positions and procedures, and an appreciation of the part each team member plays in the operation. All during team practice the instructor supervises the team's performance.

## **119. TECHNICAL PHASE**

*a.* The team training of a crew, squad, or detachment begin with walk-through practice of the technical fundamentals. For example, suppose a rifle squad is to be taught how to change from one tactical formation to another. First show where each man goes, then have the men do it slowly and deliberately several times. As soon as the team members understand the procedures have them do it at the normal speed. The beginning stage of practice may be held on flat, open ground or in an armory. When the team has learned the fundamentals, have it practice in woods or on broken terrain. Once the technical fundamentals are fixed in the men's minds, take up the tactical application.

*b.* On-the-spot guidance and necessary additional explanations help this training. Keep the speed of the practice within the ability of the individuals in the team.

*c.* In most team operations, it is desirable for each team member to know the duties of every other member. To give this all around training, rotate the men on the team duties. This helps the team leader to recognize the best combination, gives the team coordination and flexibility, and makes each man a more valuable team member.

## 120. TACTICAL PHASE

*a.* The tactical phase of training the military team covers all phases of combat operations. It is the objective toward which all other training leads. It uses all the knowledge and skill of every man. The previous instruction and practice, which included a great variety of individual subjects, finally is fitted together into a single training period. Here, in the tactical training of the team all the doctrine, principles, procedures, techniques and skills are applied under simulated battle conditions.

*b.* After instruction in tactical, logistical, or administrative doctrine has been given to the individual members, the team practices this doctrine in tactical exercises. No tactical exercise is complete without a critique (pars. 134-136).

## CHAPTER 8

### EXAMINATION

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#### Section I. GENERAL

#### 121. KINDS OF TESTS

Generally, the following two kinds of tests are used :

*a.* Aptitude tests that show the men's natural ability. Use these tests to select men for special training, such as radio operators, mechanics, or other occupations requiring special aptitudes.

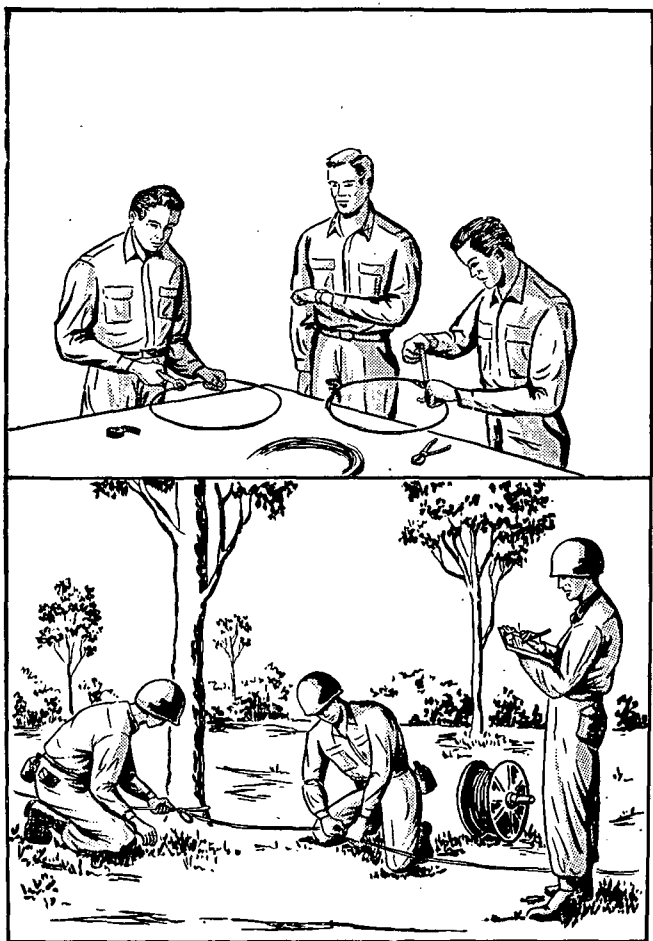
*b.* Achievement tests that show what progress has been made. Use these to give the men added incentive for learning; to determine weaknesses in instruction—so they may be corrected—and as a basis for review. (By holding directed discussions after tests, doubtful points may be cleared up, wrong ideas removed, and correct ones emphasized.)

#### 122. ACHIEVEMENT TESTS

There are three classes of achievement tests (classified according to the method of giving them)—oral, written, and performance. In selecting testing methods, use the test best suited to the situation.

*a. Oral tests* are used in nearly all training. For the evaluation to be reasonably accurate, use as much care in oral questions as in written or performance





*Figure 13. Performance tests.*

tests. Use the oral test to examine individuals in small groups. Do not use it as the only means of testing and do not try to test by recitation in unison. Call on one man at a time to answer a requirement.

*b. Written tests* are valuable in rapidly estimating a soldier's knowledge. Written or oral tests are especially useful when performance tests cannot be administered.

*c. In performance tests* the man actually does the job on which he is being tested (fig. 13). Observe the quality of his work as well as his speed and accuracy of performance. The performance test normally is the best method for measuring the ability of the man or unit to do a job. Use it whenever possible. Supplement performance tests with oral and written tests, and personal observation.

### **123. RESPONSIBILITY FOR TESTING**

Commanders are responsible for tests conducted to evaluate over-all training progress (par. 56). Instructors are responsible for testing the effectiveness of the instruction. They may be required by the commander to prepare and conduct formal tests when instruction in a subject is complete, or at the end of a training phase.

### **124. CHARACTERISTICS OF A GOOD TEST**

*a.* When preparing a test, analyze the training objectives. Make the test cover the knowledge, abilities, and skills of the men with respect to all the principal objectives covered in the instruction. Avoid requirements based on material that has not been taught.

b. Make the test directions clear enough and simple enough so that the men know exactly what they are expected to do. To make the test easy to score, use requirements that encourage simple, clear-cut answers or actions.

## **125. DISCUSSION AFTER TEST**

To get the full training value from a test, hold a discussion after the men know their test results. Each man is eager to have his solution or performance verified, or, when it is wrong, to be shown why. Lasting benefits will be obtained from these discussion periods, since they provide an opportunity to help the soldier derive full instructional value from the examination, and they help the instructor detect weaknesses in his instruction.

## **Section II. PERFORMANCE TESTS**

### **126. GENERAL**

a. When practicable, the best way to test the ability of men or units to do a job is a performance test. Performance tests are suited to technical procedures, drills, tactical exercise, or any other action. The best way to find out whether a man can go from one place to another at night with the aid of a compass is to have him do it. The best means, short of battle, to test a unit's ability to distribute fire is to conduct a practical firing exercise. Other examples of performance tests include—

- (1) An actual motor march or foot march.
- (2) The reduction of a stoppage in a machine gun.

- (3) A motor vehicle driver's test.
- (4) The preparation of a morning report.
- (5) An artillery firing test.
- (6) Field sanitation by a unit in bivouac.

*b.* The performance test is the basic method used by higher commanders to verify a unit's combat readiness. Also, it is a means junior leaders use to prepare their units for inspections or tests conducted by higher commanders.

## **127. PREPARATION OF PERFORMANCE TESTS**

*a.* A complete performance test includes directions to the soldier or unit being tested, directions to the testing team (the instructor and his assistants) and a check list for recording the performance results.

*b.* Prepare the test to include instructions and scoring and make the over-all plan, for giving it, easy to understand and easy to execute. Limit the scope of the test and state the instructions clearly and simply. Before using the test, try it on a few men or a unit to see that it is practical and will give satisfactory results. Based on this try-out, revise it, as necessary, and try it out further until it will accomplish its purpose.

*c.* Before starting the test, thoroughly orient the testing team and the men or units to be tested. As the test proceeds, the testing team bases its observations on the various items listed on the check list. Finally, compile the results and scores, when scores are given, and critique the problem with the participants.

## **Section III. WRITTEN TESTS**

### **128. GENERAL**

*a.* Written tests have the advantage of testing large numbers of students simultaneously, and they can be used for frequent but short spot checks. Written tests provide usable records for evaluating the instruction and the students' progress.

*b.* Some written tests may be considered as performance tests. For example, the drafting of an operation order involves written work, and yet can be a test in the performance of a staff duty. Also, the calculation of an explosive charge involves pencil and paper work, but it is a performance test of a special skill. The succeeding paragraphs discuss some forms of written tests frequently used in the field to supplement performance tests.

### **129. OBJECTIVE TYPE TESTS**

*a.* An objective type of test is one in which those being examined are required to furnish a yes or no answer, or to indicate whether statements are true or false, or to designate the correct answer from several choices presented. The clear-cut nature of the answers enables these tests to be scored quickly and analyzed readily, so as to evaluate the learning obtained by each individual and, also, to appraise the quality of instruction. Each item in the test should be designed to have only one correct answer. This type of test allows for obtaining the answers to a number of questions in a short period of testing. It provides for a large sampling of the students' knowledge, by using questions which require brief answers.

Objective type tests require careful preparation to insure that all questions are easily understood. Avoid doubtful expressions—make the wording clear and to the point.

b. Appendix IV contains some of the common types of objective tests.

### **130. ESSAY TYPE TESTS**

The essay type test requires written answers at least several sentences long. The essay test has the advantage of allowing the soldier maximum opportunity to select and present his knowledge in writing as he desires. It is useful in testing the understanding of principles and concepts, in getting an expression of opinion, and in presenting solutions requiring qualification. In an essay type test, the soldier is required to write a comparison, a description, or an explanation of certain points included in the instruction. It indirectly tests his educational attainment, the organization of his thoughts, and his ability to express his thoughts in writing. The essay type test is not suitable for men of limited education, it does not lend itself to exact scoring, and it requires much time and effort to score.

## **CHAPTER 9**

### **DISCUSSION AND CRITIQUE**

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#### **131. GENERAL**

The discussion and critique stage of instruction provides an opportunity for review and clarification of the main points of the subject. The critique stage, however, usually is restricted to that summary or review given after the application stage of instruction. Application is not complete without a critique.

#### **Section I. DISCUSSION STAGE**

#### **132. IMPORTANCE**

The discussion stage affords an opportunity to clear up any part of the instruction that the class does not understand or that it wishes to develop in more detail. The discussion stage may be started at any time during the instruction when the instructor feels that the class is ready for it. Normally, introduce the discussion stage after the soldier has firmed up his thoughts on the subject as a result of the presentation, application, or examination stages of instruction.

#### **133. CONDUCT**

*a.* Conduct the discussion by using the conference or some other type of discussion method that has the

advantages set forth in paragraph 103 and in the Armed Forces Discussion Leaders' Guide. Get the class to participate directly in the instruction by thinking and talking. This increases their interest in the subject, and encourages them to ask questions about things they don't understand. By guiding the discussion, the men will also be encouraged to express their own viewpoints and dissenting opinions on any other part of the instruction. By asking leading questions that have been prepared in advance, the instructor can guide the soldier to develop the ideas that he wishes to review or enlarge upon during the lesson. When necessary, he can introduce any additional teaching that the class needs, and make arrangements for selected soldiers to get additional instruction. The same questioning technique that was used in the presentation is used in the discussion.

b. In preparing a discussion that follows an examination, include a list of the most common errors noted and an analysis of these errors. Organize the discussion so that it covers the *what*, *where*, *when*, and *why* of these errors.

## **Section II. CRITIQUE STAGE**

### **134. IMPORTANCE**

Exercises are seldom perfectly executed by all men and all units participating, and frequent small errors may be expected. The critique provides an opportunity to correct wrong doing and prevent wrong learning, and to relate what was learned in one lesson or exercise to the main points learned in others.



Use the critique stage with the application stage, and with the examination stage when a performance test is used. Make it a point to give a *critique*, analyzing the performance of an individual or a team either during or immediately following the performance.

### 135. CONDUCT

*a.* The critique stage can be developed by the lecture or the conference method. The lecture and conference methods have the same limitations in this stage as they do in the presentation stage. These limitations are discussed in paragraphs 98 and 104. When the background of the men is limited or time is short, use the lecture method. Generally, the critique can be given most effectively by conference because this method encourages a two-way exchange of ideas and thoughts between the instructor and the soldiers.

*b.* Make the critique constructive—

- (1) Briefly review the action.
- (2) Point out the soldiers' achievements during the work, commending good performance.
- (3) Point out the major errors noted, and give suggestions for correcting them.
- (4) Encourage the men to ask questions that will clarify their understanding.
- (5) Summarize the lesson learned.
- (6) Create in the class a feeling of accomplishment and a desire for continued achievement in training.

*c.* Guard against antagonizing and discouraging the group. Do not present a long list of minor de-

ficiencies; avoid strong criticism of an individual or a unit in the presence of the entire group.

d. When disappointed in the results of the exercises, the instructor should reexamine the training methods and his own leadership for ways of improving future instruction.

### 136. CRITIQUE OF TACTICAL EXERCISES

No tactical exercise is complete without a critique. For small unit exercises, hold critiques as soon as practicable after the exercise is ended. First, give each leader participating in the exercise a chance to critique his own team's performance, then take over and continue to develop the critique to bring it to a reasonable conclusion.

a. Make the critique *brief*. Illustrate it with necessary maps and diagrams, plan it well, and conduct it in an enthusiastic manner. Make sure that the men who are listening to the critique are comfortable and that they are arranged so that they can hear what is said and can see any maps or charts used.

b. Consider the effect of the critique on the entire command. The staff operations in many cases enter into the discussion to the same degree as that of other units and their leaders. Sometimes it is best to conduct several critiques—one for all of the unit, and then a separate critique for the officers or non-commissioned officers. This avoids possible resentment or lowered morale of any men or units taking part in the exercise.

c. Bring out reasonable conclusions at the critique; make them clear to everybody. Give clear and logical reasons for each conclusion. Do not expect the standards of performance of the men and the unit to be beyond their stage of training.

d. Keep in mind the exercise's training purpose. Give recognition to men who make outstanding contributions to their team's performance, and also call attention to any errors or incorrect tactics without becoming personal. When errors have been made, give the correct solutions and emphasize them to correct any wrong impressions about the instruction. When more than one correct solution is possible, give a preferred solution. Emphasize that other solutions are permissible provided that the fundamental points are correct and sound principles are followed.

## CHAPTER 10

### TRAINING AIDS

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#### Section I. PLANNING AND USE OF TRAINING AIDS

##### 137. GENERAL

*a.* Training aids assist the instructor to stimulate the soldier's interest and understanding through more than one sense channel. By seeing, hearing, sometimes touching, and even smelling and tasting the object being studied, the soldier learns more readily and remembers longer. For effective and efficient instruction, use training aids, when practical, in every lesson. Here are some various types of training aids that are common to the Army, Navy, and Air Force—

- (1) *Projected training aids:* Training films, motion pictures and slide films, transparency slides, and associated projection equipment.
- (2) *Graphic training aids:* Posters, charts, certain maps, flat illustrations, pictorial literature, and similar items.
- (3) *Three-dimensional training aids:* Mock-ups, models, and similar items.
- (4) *Special devices:* Synthetic trainers, mechanized evaluators, simulated operational systems, and similar items.

*b.* For detailed information on specific aids, see FM 21-8. For suggested aids on specific subjects,

see the appropriate field or technical manual. For example, FM 23-5 shows you training aids that are suitable for preliminary M1 rifle instruction.

### **138. USE OF TRAINING AIDS**

Training aids help to train men more efficiently and effectively. Training aids also help to standardize instruction. Some of their main uses are—

- a.* To provide illustrations not otherwise available.
- b.* To simplify a mechanical process by *showing* how instead of *saying* how.
- c.* To emphasize a point so it will be well remembered.
- d.* To replace demonstration teams.
- e.* To improve or vitalize instruction.
- f.* To arouse and sustain interest in training.
- g.* To approximate a battlefield environment.
- h.* To let the soldier learn through using several of his physical senses.

### **139. AVAILABILITY OF TRAINING AIDS**

*a.* The commander makes sure that standard training aids are made available to his instructors. In a large command, the construction and issue of these aids often is controlled by a designated staff officer. The officer in charge of training aids in this case is responsible for—

- (1) Maintaining complete lists of training aids that are accessible in the organization, or that can be procured from other sources.
- (2) Assisting troop leaders in scheduling the use of all available aids.

- (3) Supervising the development, construction, and allotment of training aids.
- (4) Indicating the training aids that are of value during training, the ways to use them, and the procedures to train instructors how to use these aids.

b. Instructors are responsible for anticipating training aid requirements in time to obtain or prepare them for instruction.

c. In many cases the most valuable training aid is the *real object* itself—a gun, a switchboard, or the terrain. However, most training aids are designed to supplement the real object. Training films, working diagrams, and cut-away models are examples of training aids used to show things not normally visible to the soldier.

d. Some training aids, for example, the weapons disassembly mat, rubberized terrain model, or training films, and graphic training aids are durable and portable and have wide application throughout the Army. These aids lend themselves to centralized procurement. For a specific need at hand; however, the using unit can design and prepare its own aids.

e. Training aids are not used for eyewash; they serve a definite training purpose. Fragile objects or huge unwieldy objects, intricately devised, may be of no value to troops in the field. On the other hand, intricate special devices are of real value to certain type units. The most valuable aids, however, are the neat, simple, practical, field expedient types (fig. 14).

f. To help anticipate the training aids to use, most subject schedules list the minimum aids required for the instruction or training (app. II).

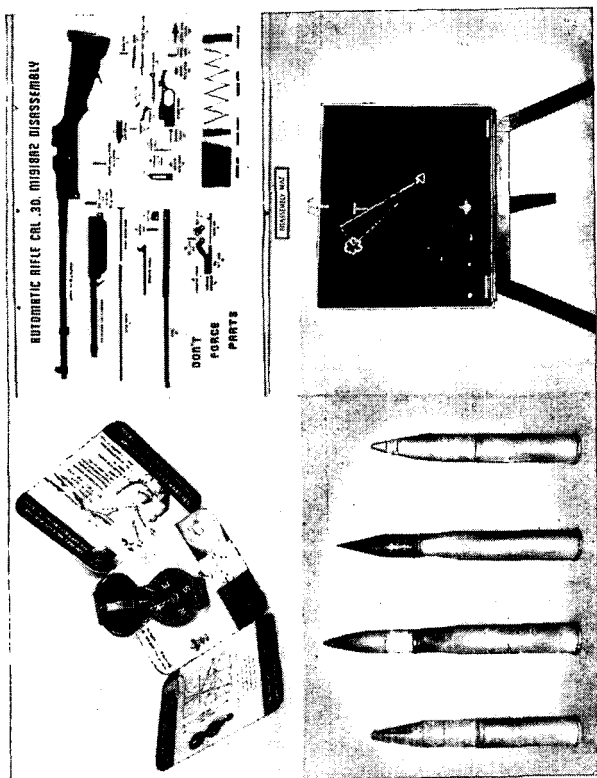


Figure 14. Four types of training aids.

## Section II. TYPES OF TRAINING AIDS

### 140. TRAINING FILMS

a. Training films *explain* or *demonstrate* military subjects in a vivid, interesting, and accurate manner (fig. 15). They are particularly helpful for demonstrations that cannot be put on because of limitation of time, equipment, or personnel. They are used to supplement the presentation, or in mass training to show combat tactics and techniques. For practically every subject in military training, there is a training film or training film series covering the subject's battlefield importance and showing it under combat conditions.

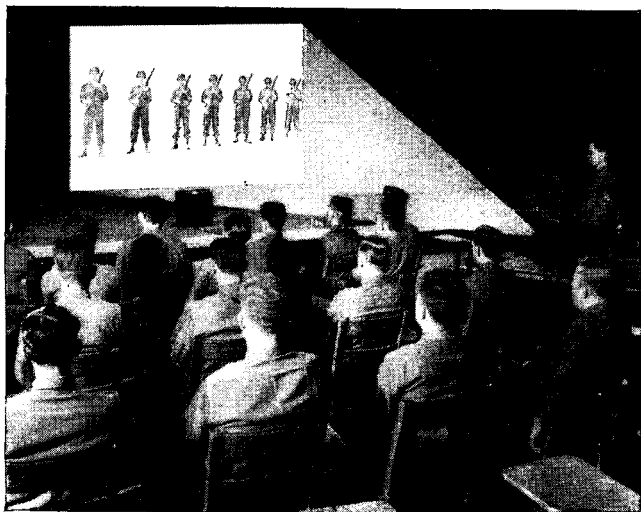


Figure 15. Showing training film in classroom.



*b.* Plan to show films at an appropriate time in the instruction. Study prospective films in advance and make notes. Use these notes later to direct class attention to the main points.

*c.* Make sure that enough time is allowed not only to show the film but also to allow for an adequate introduction and discussion. Rehearse the projectionist to make sure that he is a capable operator and that the projector works.

*d.* To introduce the film, tell the men what to look for in it. Tell the combat importance of what they are about to see. Relate the film subject to the soldier's previous training and experience.

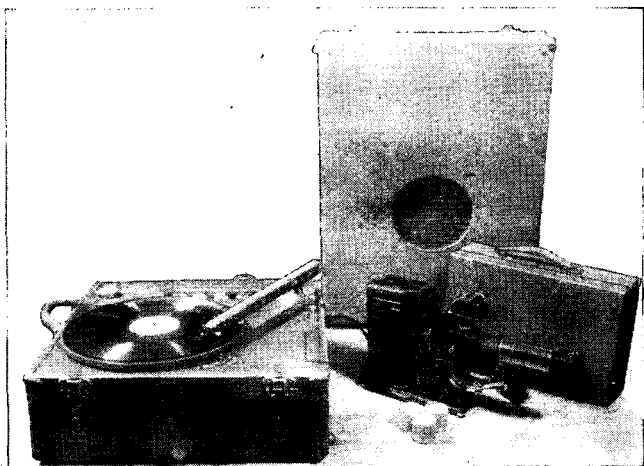
*e.* Follow the training film with more explanation and demonstration, or application and examination as the situation requires. Carefully planned follow-up activities complete the instruction.

*f.* Training films and film strips are listed in detail in **SR 110-1-1**.

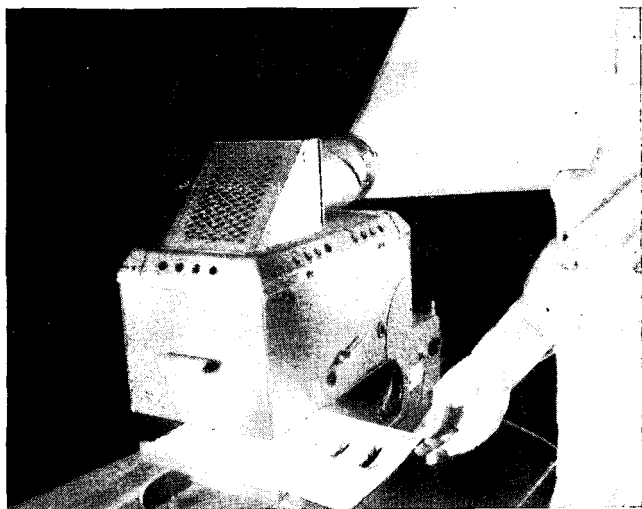
#### **141. FILM STRIPS**

*a.* A film strip is a series of single photographs, diagrams, charts, drawings, and similar representations printed on standard motion picture film (35-mm). Use film strips to save the time and labor that normally would be used for preparing charts. Use them to simplify instruction. An entire talk on a particular subject can be based on a film strip. Explain each picture or diagram as it appears.

*b.* Use film strips in teaching a variety of subjects. They are most effective in training small groups. Some film strips are made to be shown in conjunction with the use of sound equipment (fig. 16).



*Figure 16. Film strip projector and associated sound equipment.*



*Figure 17. Operation of opaque projector.*

## 142. OPAQUE PROJECTION

The opaque projector reflects photographs, maps, and similar opaque material on a screen so that large groups may see them (fig. 17). This projector is particularly useful as an aid because material can be collected from books, field and technical manuals, magazines, post cards, and catalogs. Key points that should be stressed can be indicated by typing or hand-printing directly on the material.

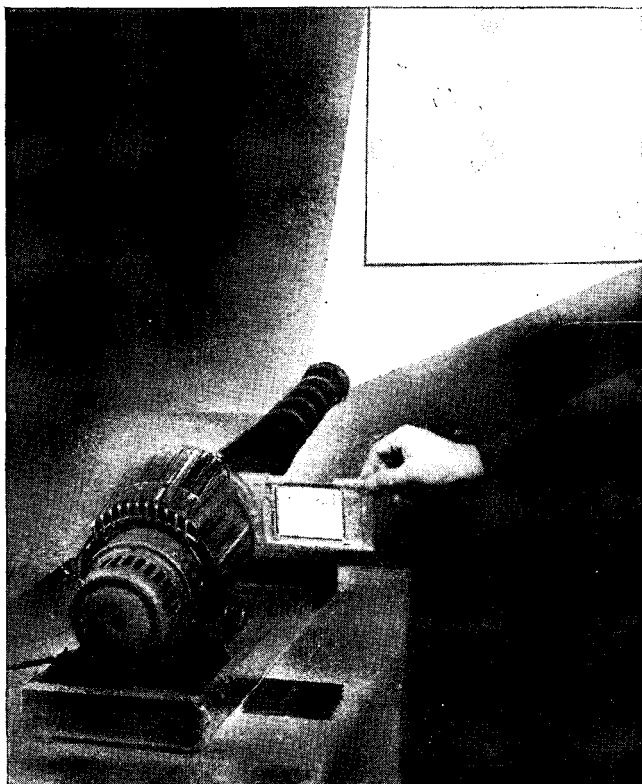
## 143. LANTERN SLIDES

a. Use lantern slides in the same way as training films, film strips, and opaque projections (fig. 18). Although more expensive, the glass slides often are more desirable than the opaque projection. They include the 2'' x 2'', 3 $\frac{1}{4}$ '' x 4'', and even larger transparencies.

b. A lantern slide can be prepared on a piece of acetate. Use a grease pencil or a speed-ball pen with drawing ink to make figures or letters on the acetate.

## 144. SHADOW BOXES AND EXPEDIENTS

When a theater or similar blacked-out building is not available, use a *shadow box*. This is a screen placed inside a box so the sides of the box shade the screen. It allows the projection of film training aids in an undarkened room or outside. When there is no direct light shining into the shadow box, the images on the screen are clear. A shadow box can be made in the field by placing a screen in the back of a covered truck. See FM 21-8 for further details on the construction of shadow boxes.



*Figure 18. Operation of lantern slide projector.*

## **145. CHARTS AND DIAGRAMS**

Charts present to the soldier's eye the important points of a lesson. They visually represent facts and situations. A chart usually has printed words. It may include a diagram or sketch of an object or terrain feature.

a. To be effective, a chart must—

- (1) Be simple.
- (2) Be legible.
- (3) Contain large, clear lettering.
- (4) Include only key words or phrases.
- (5) Exclude all distracting detail.

b. Figure 19 shows an example of a good diagram. It is simple, understandable, and accurate. It illustrates the wrong and right way of firing to portray, graphically, what could happen to a soldier who made this mistake in combat.

c. In making a chart or diagram, make it big enough to be seen easily. Consider the following letter sizes as a minimum:

<i>Letter size</i>	<i>Distance</i>
1"	20 ft.
2"	50 ft.
3"	100 ft.

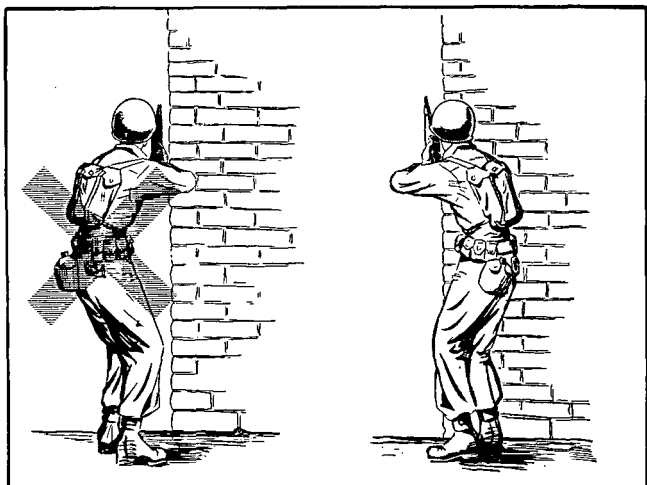
d. Make the charts, diagrams, maps, or posters so that they have enough visual appeal to attract and hold the soldiers' attention. Impress the soldiers with facts, ideas, or images they will remember.

e. When using a chart, stand to one side so the soldiers can see the material being presented. They should look at the chart only when specific details are being pointed out. When not in use, remove or cover it or, in case of a blackboard, erase the information so that it will not distract the soldiers' attention.

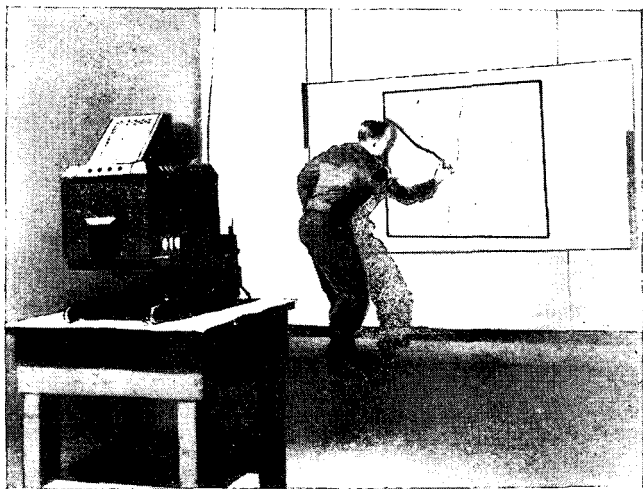
f. Some charts can be made by tracing projected images as shown in figure 27.

## **146. PHOTOGRAPHS**

Sometimes it is impractical to show a large object or piece of equipment to the class. Sometimes the



*Figure 19. Use of a diagram to illustrate "right and wrong" techniques.*



*Figure 20. Making a chart by tracing projected image.*

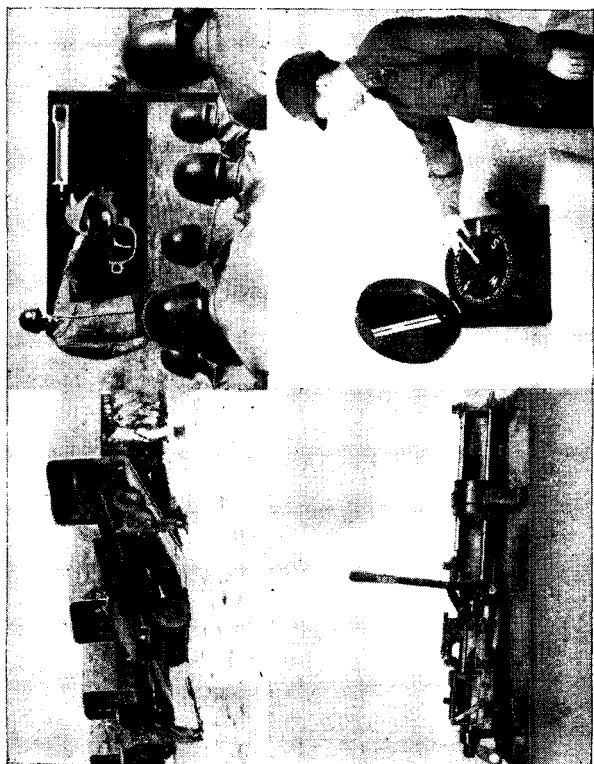
equipment is not available. In such cases photographs of the object may be used. Thumbtack or paste them on a display board, or project them on a wall or screen with an opaque projector so they will be visible to the entire class. The Signal Corps activity at an installation can assist in building up a photograph library.

## 147. MODELS

a. Use models to speed up learning (fig. 21). It may be possible to reduce the original object involved to its simplest form and bring it more in line with the soldiers' understanding. Types of models are—

- (1) *Still models* that show the object's construction and general appearance. They are the simplest type.
- (2) *Working models* that show some of the normal operating movements during functioning of a mechanism. The functioning need only be as complete as necessary for instruction. Working models leave a vivid impression of the object.
- (3) *Cut-away models* that give the soldier an opportunity to look inside at the functioning and relationship of items that otherwise would be hidden by covers or parts.
- (4) *Mock-up models* that represent an object or a portion of the object. Normally, they are used for practical work.

b. Regardless of the type of model, be sure it is a reasonable likeness of the actual object.



*Figure 21. Four types of models.*

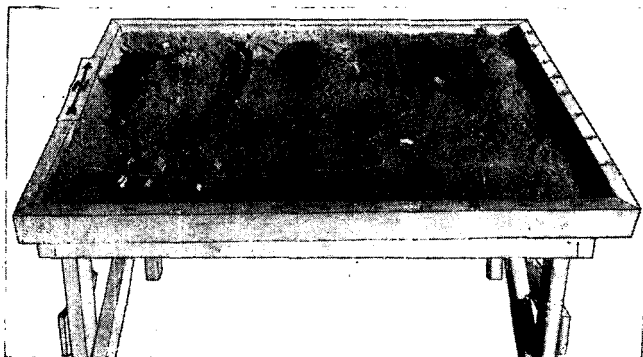


## 148. SAND TABLES AND TERRAIN DEVICES

a. There are many uses for the sand table in courses of instruction. It takes little time to prepare realistic terrain on it (fig. 22). A few of the subjects that can be taught on the sand table or any similar terrain device are—

- (1) Combat formations.
- (2) Patrolling.
- (3) Terrain analysis.
- (4) Tactics.
- (5) Map reading.
- (6) Fire adjustment.
- (7) Communication.
- (8) Supply installations.
- (9) Traffic control.

b. TF 7-265 and TF 7-266 are recommended as aids in using sand tables. Figure 23 shows some useful accessories. For information on sand table construction, see FM 21-8.

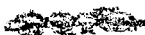


*Figure 22. A sand table.*

# SAND TABLE ACCESSORIES



TREES (DYED SPONGE  
AND PAPER CLIP)



UNDERBRUSH (MOSS)



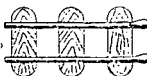
BUSHES (DYED  
POPCORN)



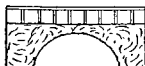
WHEAT OR CORN  
SHOCKS (BRUSH  
BRISTLES)



BUILDING (SCRAP WOOD)



PONTOON BRIDGE  
(TONGUE DEPRESSOR,  
MATCH STICKS)



BRIDGES (SCRAP WOOD,  
SOAP, STAPLES)



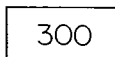
FOOT BRIDGE (TOOTH  
PICKS, MATCH STICKS)



HAY STACK  
(MELTED WAX)



ROADS (ENGINEER TAPE,  
CAN BE DIPPED IN INK)



COORDINATE MARKERS  
OR RANGE DESIGNATORS



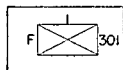
FIELD ARTILLERY  
(MATCH STICKS, THUMB  
TACKS)



DIRECTIONAL MARKER



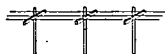
TREES (PINE CONE)



UNIT DESIGNATION



RR TRACKS (TOOTH  
PICKS, STRING)



TELEPHONE POLES  
(MATCH STICKS, THREAD)



DUKW (SOAP,  
THUMB TACKS)



PILLBOX (WOOD)



TANKS, TRUCKS  
(SCRAP WOOD, SOAP)



ROAD BLOCK  
(MATCH STICKS)



Figure 23. Sand table accessories.

## 149. THE BLACKBOARD

*a.* The blackboard is one of the most important training aids available. It lends itself well to *on-the-spot* remarks and illustrations, because the information can be put on it either during or before class. It promotes class participation by helping the instructor and the class develop a subject together. It may be impractical or undesirable to put instructional material into permanent charts before class time. In this case, use the blackboard.

*b.* The blackboard is also inexpensive. It can be made from almost any type of smooth surfaced wall-board or plywood simply by painting the surface with several coats of black paint. A waterproof flat paint (non-oil) is required. Special blackboard paints are available commercially.

*c.* Keep the following in mind when using the blackboard:

- (1) Print large enough for everyone in the class to see.
- (2) Do not talk with your back to the class while using the blackboard.
- (3) Before starting the instruction, prepare any computations on a small piece of paper. Keep this paper in the palm of the hand and copy the figures onto the blackboard during the class to avoid obvious errors.
- (4) Before class draw any required sketches on the blackboard in pencil. The class cannot see these lines. During class merely trace in the pencil lines with chalk. This also avoids errors.

- (5) Use colored chalk occasionally for emphasis.
- (6) When not actually using the blackboard, turn it around, or cover or erase the information so that it will not distract the soldiers' attention.

## **150. THE POINTER**

Use a pointer to focus attention on some small area, object, or part of a training aid. However, a pointer handled aimlessly becomes a distraction. For example, avoid beating it against the object or the body, or twirling it in the hands. When a pointer has served its purpose, lay it aside. By using a pointer, the instructor can maintain his poise and avoid coming between the class and the training aid.

## **151. OTHER TRAINING AIDS**

In both indoor and outdoor training make every effort to use training aids to promote realism and to increase interest. There are many aids that have not been mentioned, such as public address systems, battle noise recordings, obstacle courses, demonstration areas, and other similar training aids and facilities. For further details, see FM 21-8.

## **152. SUGGESTIONS**

Training aids help in teaching. When using them—

- a.* Make every effort to promote realism. This increases the soldier's interest and attention.
- b.* Consider the soldier in preparing training aids.
- c.* Explain the aid; do not just display it.

*d.* Keep it simple, because any unnecessary material tends to confuse the lesson.

*e.* Use different colors for contrasts and comparisons.

*f.* Make the aid durable so that it can be used for many weeks or months.

*g.* Build aids that are easy to handle and operate.

*h.* Make the lettering on all aids large enough and simple enough to be read easily by all soldiers. Simple block letters usually are the best.

## CHAPTER 11

# PREPARATION AND CONDUCT OF A TACTICAL EXERCISE

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### Section I. GENERAL

#### 153. GENERAL

*a.* Tactical exercises are used to *instruct* and *test* all types of military units. This chapter tells how to prepare a complete written *field exercise* for a small unit.

*b.* To prepare *other types* of tactical exercises (described in ch. 1) or to prepare a field exercise for a large unit, use the same principles and the same general procedure.

#### 154. SEQUENCE OF TASKS

The development of a field exercise is not a single task, but a group of tasks. In a small unit field exercise, the tasks normally are performed by one person. In a large unit exercise, this becomes a staff project. Some tasks may be done concurrently, but each is considered separately and none are slighted. These tasks can be grouped into three phases—

- a.* Planning.
- b.* Preparation.
- c.* Conduct.

## **Section II. PLANNING A FIELD EXERCISE**

### **155. THE DIRECTIVE**

Planning of a field exercise starts with a directive issued from a higher command or from the instructor's own headquarters. The directive is a concise statement of the tactical doctrine or techniques to be emphasized; the time, place and date of the exercise; the units to participate; the facilities available; and the physical limitations, if any. It may be written or oral. The first step in planning is to study the directive to see just what the objectives are and to see what facilities are available. For a sample directive, see appendix V.

### **156. REFERENCE MATERIAL**

The next step is to review the reference material that applies to the exercise. This includes field and technical manuals that contain the doctrine and technique to be used, and army regulations, circulars, and garrison regulations that cover safety procedures or place other administrative restrictions on the exercise.

### **157. RECONNAISSANCE**

Start by making a map study to locate suitable terrain for the exercise. There may be several plans of action that appear usable. After deciding on one or more possible plans, make a thorough ground reconnaissance to check these plans. During the reconnaissance, decide on a definite plan; sketch the action on the map and make notes.

a. When considering *suitable terrain*, remember that the teaching will be done progressively. First have the unit work on ground that lends itself to simple solutions of the problems. Later in the training, use terrain that does not offer obvious solutions. Thus, the unit will learn to use the ground as it finds it in combat.

b. Outline the *situations and their requirements* while on the ground. Here it is well to use backward planning. Begin where the troops will be when the exercise ends. Then work backward through the situations until that point is reached where the exercise begins. In an attack problem, the exercise normally ends on an objective, so begin on the objective and work backward to the attack position. Plan the action so that the soldiers can easily understand how a certain situation developed at a particular time. Consider how the troops are influenced by—

- (1) Their mission.
- (2) The relative strength, composition, and disposition of the opposing forces.
- (3) The terrain.
- (4) The distances involved.
- (5) The available reinforcements.
- (6) The time of day.
- (7) The weather.

c. Look for ways to make the *training* realistic. To increase individual and team efficiency in tactical exercises, reproduce combat conditions as near as possible. In battle, nerves often are strained, time is pressing, the situation often is vague, orders arrive late, messages are garbled, communications are in-



interrupted, and surprises occur. Obtain realism by deliberately introducing these conditions in the later phases of tactical exercises. Plan to arouse the soldiers' imagination so that each man will conduct himself as if he actually were opposed by an intelligent and determined enemy (fig. 24).



Figure 24. Simulating combat conditions in training.

d. To help later in planning umpire check lists, consider possible friendly action and movement. Make your observation *from the enemy position*.

e. Throughout planning, *control* is a constant consideration. Initially, only the general elements of the control plan can be determined. Develop details after completing the outline or scenario of the exercise. Check every situation to see that it can be controlled. Avoid administrative obstacles that cause unnecessary delays and frustration. During

this planning, mark on the map all control elements that should be included.

*f.* In considering all these points, do not forget that it will be desirable to *emphasize a few important training objectives* in each exercise conducted. So the exercise should be simple. If too much material is included the exercise becomes complicated, accomplishes little training, and is difficult to run.

### **Section III. PREPARING A FIELD EXERCISE**

#### **158. THE PREPARATION PHASE**

Preparing a field exercise includes completing plans and putting them on paper, preparing the terrain for the exercise, notifying the troops, selecting and training the control personnel, and training the enemy detail. For a connecting link between the planning and preparation phases, prepare a map or sketch during reconnaissance. Once prepared, it provides a firm basis on which to write the scenario of the exercise.

#### **159. WRITING THE SCENARIO**

*a.* The scenario includes the situations, requirements, and a time schedule. In a field exercise, the scenario is not issued to the participating unit, but serves as a guide to the exercise director and to the control personnel. State the situations and requirements clearly and briefly. In preparing the exercise, use a standard form.

*b.* An example of a standard form for an exercise follows:

## FIELD EXERCISE

### TITLE

#### 1. GENERAL SITUATION:

*a.* Maps. List all maps used, including overlays and sketches.

*b.* Give the participating unit the background information on which the exercise is based. Include information that they would have if they were in combat. Obviously, the details cannot be included; therefore, give general information only.

*c.* Essential elements of the general situation are—

- (1) A statement containing pertinent information about friendly forces other than the participating unit.
- (2) In a defensive problem, the reason for defending.
- (3) The location of the participating unit, both relative to other units and on the ground. The unit is not normally deployed when the problem begins.
- (4) What the unit has been doing in the immediate past.
- (5) The unit leader's location.

*d.* Normally, give the entire unit the general situation at the start of the exercise. Be sure that the men as well as the unit leader understand it.

#### 2. INITIAL SITUATION:

*a.* Draw the initial situation so that the action starts along a desired line. Express the situation as a complete operation order to give the unit com-

mander training in extracting pertinent portions of the order. Do not assume knowledge of the situation prior to that given in the general situation. Issue the order orally or in written form, with or without overlays or maps depending upon the type of training desired.

*b. FIRST REQUIREMENT:*

A requirement is a brief statement of the actions expected of the participating unit as a result of the preceding situation. Where applicable include actions of the unit as well as its leader.

**3. SECOND SITUATION:**

*a.* Usually a solution of the initial situation does not cover all the training objectives given in the directive. Give further training by introducing additional situations and requirements. Subsequent situations cause a logical development of the exercise. They do not assume a specific solution of the previous requirement by the participating unit, but only indicate events that are sure to have taken place.

*b.* Necessary details of subsequent situations are—

- (1) What action takes place.
- (2) When and where it occurs.
- (3) If an enemy action, the strength and disposition of the enemy force involved.
- (4) If a message or order, its contents.
- (5) How the action is indicated to the participating units. (For large exercises, omit from the scenario the details of how it is shown. Include them in an annex covering instructions to the Aggressor Commander.)

c. Remember that the subsequent situations as written are for the control personnel's use. The unit will see only the actions that result from the description of the subsequent situations.

d. *SECOND REQUIREMENT:*

Prepare this requirement in the same way as the first requirement.

#### 4. THIRD SITUATION:

a. In any exercise, use the number of situations required to cover the training objective outlined in the directive. To give the troops a feeling of achievement in having accomplished the assigned mission, develop the exercise to a successful conclusion.

b. *THIRD REQUIREMENT:*

Do not prepare solutions for any of the requirements. Almost every situation in a field exercise has more than one logical solution. Instead, using the requirements as a guide, make an *umpire score sheet* or check list that focuses attention on the doctrine or technique to be emphasized. (For an example of the umpire score sheet, see inclosure 3 to annex A, Battalion Order 2, app. V.)

#### 5. TIME SCHEDULE:

The time schedule is the estimate of the time required to conduct the exercise. Subdivide the time schedule by situations, allowing time for the solution of the requirement. Also provide time for the troop orientation and the critique. The time allowed to solve requirements in a tactical exercise is less than that usually required in combat for the same situation. This is to keep the exercise from dragging. When the time is cut too short, however, the

troops do not have enough time to solve new situations, and they get an erroneous impression of combat action. For a sample scenario, see annex A to Battalion Order No. 2, app. V.

## 160. CONTROL

No matter how good a scenario has been prepared, the exercise requires planned and intelligent direction if the maximum training benefit is to be obtained. The next task then is to prepare the control plan. It is published as an inclosure to the field exercise. (See incl. 2, Annex A, Battalion Order No. 2, app. V.) To prepare these instructions, think out the conduct of the exercise. Think about arrival in the area on the day of the exercise. Consider all the preparations that have to be made before the troops arrive. As a detail comes to mind, note it and plan for some one of the control personnel to be responsible for it. Continue this process from the beginning to the end of the exercise, including instructions to provide for every anticipated event.

a. A major consideration in control is the *safety precaution program*, which is based on SR 385-310-1 and on the local safety regulations. In a firing exercise, appoint safety officers to enforce the safety precautions. Normally they have no other duties in the exercise. The number needed depends on the weapons used, the size of the participating unit, and the difficulty of control. Display a range flag at a prominent point behind the firing line. Post warning signs at all unguarded approaches to the area. Be sure that all roads are either blocked or guarded by a sentry, or both. Normally, it is the range

officer's responsibility to block thoroughfares leading into the impact area, and that of the chief umpire to block thoroughfares leading into the remainder of the exercise area. See that the safety limits for firing are plainly marked and visible to all firing personnel.

*b.* In many instances the scenario is not complete enough to tell the *enemy (or target) detail* exactly what they are to do and how it is to be done. In these cases, include the details of *what* and *how* in the instructions to the control personnel, as well as information on the uniform, identification, and equipment. In a nonfiring problem, use a live enemy.

*c.* Plan a *communication system* for controlling the exercise. Include communication between the umpires, safety officers, and the enemy or target detail. Because no one system is foolproof, provide an alternate system.

*d.* Included in the duties of the control personnel are their observations of the participating unit with the view of providing constructive criticism after the exercise. Those who perform this job are called *umpires*. They need a check list to assist them in making detailed observations of the specific points. While this is considered a part of control, it may be prepared as a separate document called the **UMPIRE SCORE SHEET**. Draw up this score sheet so that the umpires judge the unit on the way its leaders and members apply the principles that are involved. Prepare a separate section of the score sheet for each requirement. The umpire score sheet is usually published as an inclosure to the field exercise. For a sample umpire score sheet, see appendix V.

## 161. ADMINISTRATIVE DETAILS

Before conducting a field exercise, there are many *administrative details* to arrange—

a. Reserve the terrain for reconnaissance, for orientation of the umpire, the control personnel, and for rehearsals and actual conduct of the exercise.

b. Request and secure all *necessary materials* and ammunition.

c. Request fatigue details to prepare installations, construct training aids, and clear brush. Arrange for their transportation, equipment, and supervision.

d. Request a unit (other than that for which the exercise is written) to rehearse the exercise.

e. For all personnel, arrange and announce the—

(1) Time and place to report.

(2) Uniform and equipment.

(3) Transportation and mess arrangements.

f. Prepare the order or training memorandum covering the administrative details. The unit commander or S-3 is responsible for publishing this information but the instructor, as preparing officer, provides the details to be included. The field exercise with its inclosures is published as an annex to this order. However, the annex is not distributed to the participating units. This would destroy the realism of the training by giving them advance information on the play of the exercise. A sample unit order for use with a field exercise is shown in appendix V.

## 162. TERRAIN PREPARATION

After selecting the area and determining how to run the exercise, provide for the installation of safe-



ty devices, communications, demolitions, targets, obstacles, sound effects, and other aids necessary to produce a realistic problem. This terrain preparation may be simple or complex depending upon the materials available, the training to be accomplished, and the ingenuity of the instructor. Coordinate with the range officer before having the work started. Complete this work before orienting the control personnel and before rehearsing the exercise.

### **163. SUPERVISION AND TRAINING OF ASSISTANTS**

*a.* Many details are so small that they cannot be included in writing the various parts of a complete exercise. Yet these same details may be the difference between a good exercise and a mediocre one. It is the duty of the instructor to supervise actively all preparations. Make sure that the men who receive instructions in the order have received their copy and understand what they are to do. See that the terrain is prepared as desired.

*b.* It is also the instructor's responsibility to train his assistants. The amount of training for the assistant umpires and the safety officers depends upon the amount of experience they have had. They cannot be expected to perform to the best of their abilities unless they have been briefed correctly. The correct representation of enemy action is of utmost importance. Every member of the enemy or target detail must know his duties. The only means of accomplishing this is by adequate training.

## **Section IV. CONDUCTING A FIELD EXERCISE**

### **164. REHEARSAL**

First, use a rehearsal unit to check the training of the assistants, the communication system, and the exercise itself. (Large unit field exercises are often tested as a CPX.) Particularly check the timing of the exercise to guard against time lags and long, boring verbal instructions. A unit of the same type can usually be obtained from an organization not scheduled to participate in the exercise. Rehearse early enough so that corrections can be made.

### **165. CONDUCT**

Conduct the exercise with energy and enthusiasm. When necessary to the problem, issue additional instructions or orders. Assume the viewpoint of the next higher commander and issue the orders with the means he would have available under combat conditions. However, do not issue instructions that will hamstring the leader or the unit in solving the requirements of the situation. Unless their errors completely ruin the problem, let them suffer the consequences in the problem area so that they will avoid them in combat. When it is over, the instructor, as chief umpire or director, conducts a brief critique. Hold it on the same terrain so that the troops can see the ground. In a large unit use a map for this critique. For further discussion of critique technique, see paragraphs 134 to 136. For an outline of presentation, see paragraph 2, Inclosure 2, Annex A, Battalion Order No. 2, appendix V.

## 166. CONCLUSION

Preparation of a complete written field exercise under ideal conditions of time and facilities, and with extra troops to represent the enemy and to help control the problem, has been considered. Under these conditions a unit higher than the participating unit plans, prepares and conducts the exercise. In normal training situations, the platoon leader or company commander uses the field exercise as a method of conducting his own tactical training. He does this before he participates in an exercise conducted by a higher unit, and after he has taken his unit through the other types of tactical exercises such as sand table exercises, terrain exercises, and command post exercises. He prepares the field exercise as outlined with the time and means at his disposal. He acts as chief umpire (or director). He requests additional troops and equipment from higher headquarters. However, when not available, he uses some of his own men as control and enemy details. He improvises control communication, and plays the exercise with the friendly force at less than authorized strength. This is excellent training for his unit and should not be slighted as a method of tactical training merely because ideal conditions of extra troops and equipment do not exist.

## **CHAPTER 12**

### **EFFECTIVE SPEECH**

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#### **Section I. EYE CONTACT**

##### **167. GENERAL**

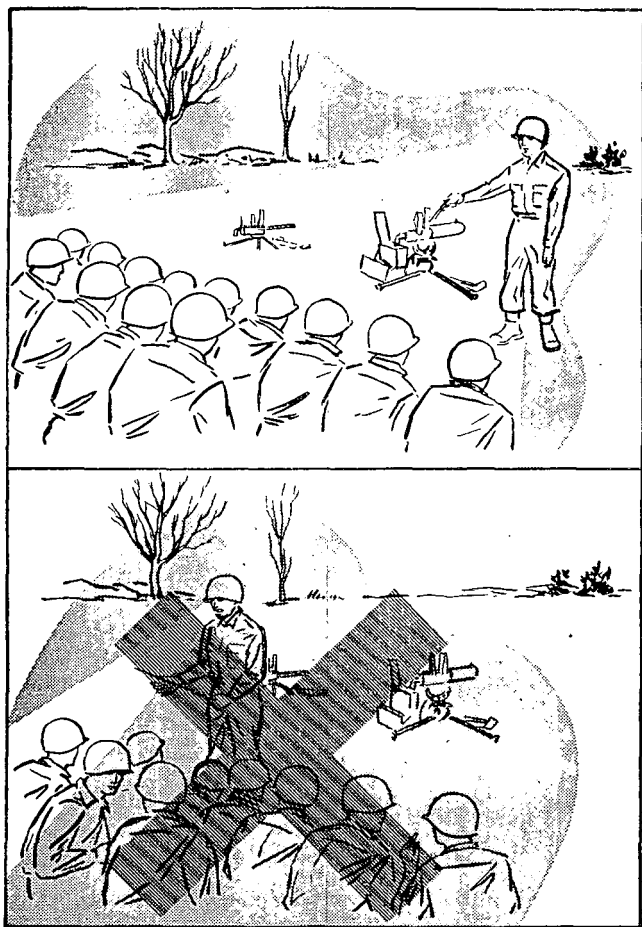
When instructing, establish eye contact with the class. Look directly at the men in the front row, then at those in the back row, and then those on the right and left. Avoid a fixed stare, but establish this eye-to-eye contact from the start of the instruction (fig. 25), and maintain it throughout the lesson period.

##### **168. PERSONAL APPEARANCE**

The first impression a class receives is important and an instructor should present a neat, military appearance at all times. Approach this as closely as field conditions allow. Show the soldiers that their instructor considers them worthy of his best appearance.

##### **169. POSTURE**

The instructor's posture, like his speech, should be natural. It should reflect mental alertness. To slouch or to remain stiffly at attention is unnatural and distracting. The instructor maintains the dignity of his instruction by the way in which he carries



*Figure 25. Establishing eye-to-eye contact with the class.*

himself. A class usually reflects his attitude. When he slumps, they slump.

## **170. MOVEMENT**

The instructor's movements should be completely natural, and he should move only for some good reason—to explain a chart, to demonstrate with a training aid, or simply to take a new position. Aimless wanderings are disconcerting. Complete immobility may put the class to sleep, for no one wants to watch a statue for a long time. Periodically, shift to a new position to regain attention and to introduce new thought.

## **171. USE OF HANDS**

Gestures are essential. They bring vitality and variety to a talk. Without them an instructor seems stiff and unnatural. There is only one important rule: **MAKE THE GESTURES MEANINGFUL!** Use them only when there is need to emphasize a point, or to describe a thought or an object. Any gesture that supports a speech and does not distract from it is good. When not gesturing, the hands rest. By observing experienced instructors and by practice, learn to use the hands naturally, as in conversation.

## **172. MANNERISMS**

*a.* Everyone has his own mannerisms, some of which may become annoying to a class if repeated frequently. It may be the habit of using a particular word or phrase or of periodically giving a hitch to the trousers (fig. 26).

b. A frequently repeated mannerism distracts the class. Playing with a bunch of keys, licking the lips, or running the fingers through the hair leaves the listeners waiting for it to happen again instead of waiting for the next point. They focus their attention on the instructor's mannerism instead of on his presentation.

c. The worst mannerism is the affected one. When an instructor imitates the mannerisms of his commanding officer or other superiors, it shows the troops that he lacks self-confidence. The class suspects that he is more concerned with himself than with a sincere presentation of the subject. No group more quickly realizes that a speaker is *putting on* than soldiers receiving instruction. No group appreciates more a natural, sincere speaker.

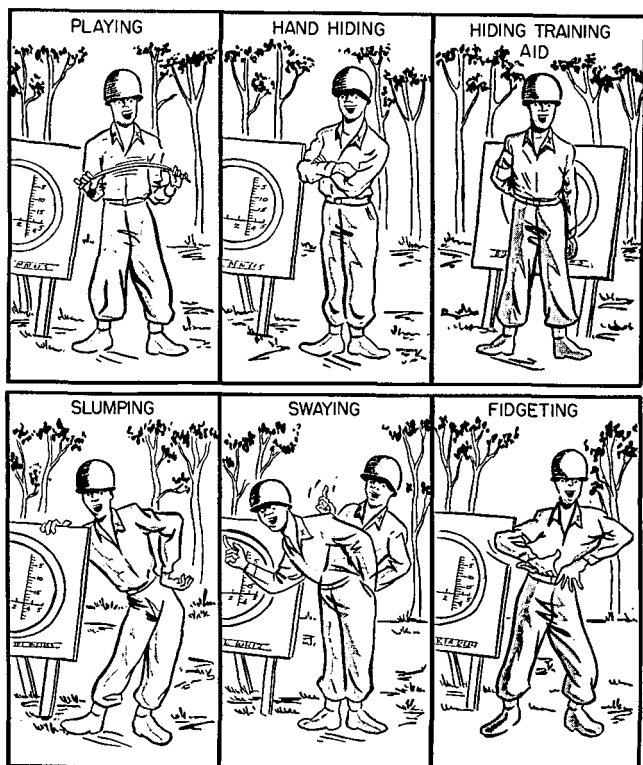
d. Once an instructor realizes that he has a distracting mannerism, he should seek to eliminate it from his everyday conversation and actions; then he is less likely to use it in front of a class.

### 173. NERVOUSNESS

a. In many ways initial nervousness is a healthy sign. It means that the instructor is keyed up and on his toes when he steps before the men. Thus, nervousness before a public appearance is normal and even helpful. Most good instructors are nervous before a class begins.

b. Careful preparation and experience are the best cures for nervousness. When an instructor understands his material, has organized his thoughts, and prepared his presentation, he will be more at ease.

c. While instructing, concentrate on the job and



*Figure 26. Types of mannerisms to be avoided.*

the teaching objective. A few additional hints for controlling nervousness are—

- (1) Before coming to class take a few good arm stretches and deep knee bends to relax the body muscles. Open the mouth as wide as possible (as when yawning) several times to ease throat and facial tension. Any exer-

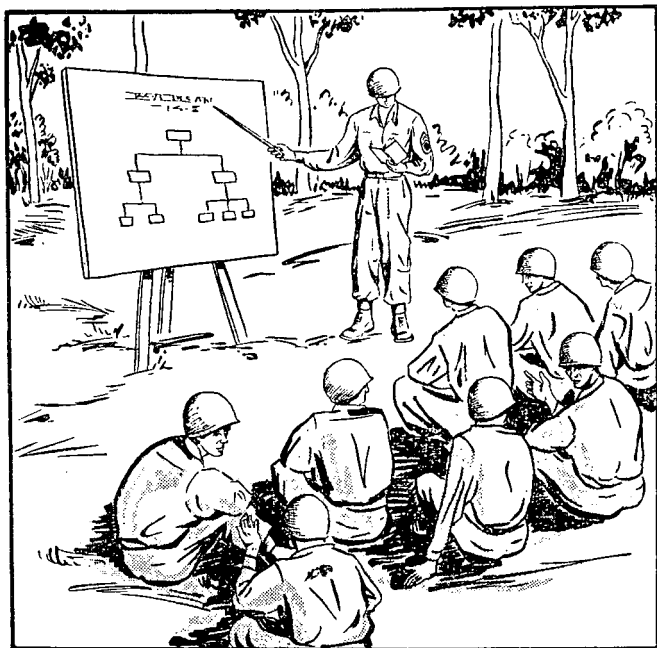


cise that relaxes dissipates excess, initial nervous energy.

- (2) Do not start talking immediately upon facing the class. Instead, look them over—wait for them to settle down.
- (3) Take a deep breath or two just before starting to talk.

#### 174. USE OF NOTES

a. When reading material, eye-to-eye contact and the skillful emphasis that drives a point home are lost. Presentation tends to be bookish instead of



*Figure 27. Result of reading material to a class.*

conversational (fig. 27). Read only when exactness is the first consideration and misquoting is to be guarded against.

*b.* On the other hand, the material must be presented systematically and as organized. This does not mean that the presentation should be memorized. That would be a grave mistake, because a memorized talk loses that conversational quality that reaches the listeners. A single error may cause a complete lapse of memory. The mind plays strange tricks, and whole passages of memorized material may crop up in the wrong place.

*c.* Normally, notes are the best guide for effective presentation. They represent the material outline, organized and ready for logical presentation. They contain details difficult to remember. Know the notes thoroughly to avoid fumbling for the right place during a talk. Hold the notes in the hand or leave them on a stand. Make the notes easy to read, typing or printing them in large letters so that they can be read at a glance. Space the topics in the logical course of the presentation. A copy of the lesson outline may be utilized as notes, or the various topics of the lesson may be printed on a series of cards.

## **Section II. EAR CONTACT**

### **175. SPEECH IMPROVEMENT**

*a.* For speech to be effective the voice must be heard, the words understood, and the thoughts expressed clearly.

*b.* An instructor should train himself to pronounce words correctly by reading aloud; by making certain that words are easily understood; and by sticking to

simple, natural words. Poor enunciation is often caused by laziness or haste. Pronounce words naturally, but pronounce them distinctly.

c. No leader begins an operation without an objective; therefore, do not begin a sentence without knowing what is to be said, and how it is to be said. Use good grammar and employ a straightforward simple style.

## **176. VOICE QUALITY**

a. Voice quality is important. It can be improved by practice, especially, if a critic is available to listen and offer suggestions.

b. Volume is necessary. At first the average speaking tone may be too shrill or gruff when its volume is increased. To be effective and to carry most pleasantly, the correct pitch of the voice must be learned. Here again practice will be helpful in avoiding a rough or shrill tone. Read aloud to a friend, or practice before an imaginary audience. When first beginning to teach, watch the reaction of the class. Look for the voice pitch and tone that will carry to the back row pleasantly and distinctly, and yet still allow a conversational manner.

c. Concentrate on a tone that rises and falls with the natural course of speech. Emphasize important points and avoid shouting or a monotonous droning tone. A class that is shouted at for a long time is unable to distinguish between the important and the unimportant.

d. Sound equipment amplifies a quiet voice. Try out the equipment before using it in class to adjust the voice to the sound and the equipment to the tone and volume to be used.

## 177. RATE OF SPEAKING

*a.* A rapid speaker will not be understood. First, the class will not be able to hear the words distinctly. Second, the speaker will pass to a new topic before the class has digested the previous thought. After presenting an important point, *pause* to allow time for the class to think about it. A reader can look back through pages he does not understand. *A listener must get the thought as it is spoken.*

*b.* On the other hand, a dragging voice is monotonous. Use a normal rate of speech, correcting any tendency to speak too slowly or too fast. The rate of speech will depend upon the nature and size of the audience, their state of training, and whether the subject material is of a technical or general nature.

## 178. ENUNCIATION

*a.* Words are built with sounds. When the sounds are distinct the words are correctly enunciated.

*b.* Practice clear enunciation and it becomes natural. It helps the listeners to concentrate on what is being said, rather than on how the instructor is saying it.

## 179. PRONUNCIATION

Correct pronunciation is a matter of accent as well as sound. Use words that are common and known to everyone. Avoid tricky, long, technical words that are peculiar to a single profession. When using a new word, make sure of the correct pronunciation.

## 180. WORD GROUPING

Avoid the complicated phrases of long sentences. Too many unrelated ideas in the same sentence confuse the listeners. Make it easy for them to follow the meaning. Remember that the object of words is to transmit clear ideas. Use simple, direct language that can be understood by anyone.

## 181. EMPHASIS

*a.* To further the class' understanding, emphasize important points. Make certain that the listeners grasp clearly the idea being conveyed. The phrase, "*My point is—*," followed by a concrete statement may help place emphasis correctly.

*b.* After introducing the subject and building up to the central idea, emphasize an important fact by pausing, by making an interest-arousing gesture, or by using an emphatic tone of voice. Use this emphasis sparingly, and only on an item deserving stress, otherwise it loses its value.

## Section III. MIND CONTACT

## 182. GENERAL

*a.* A soldier may see and hear the instructor but still close his mind to what is being said. Eye and ear contact are ineffective when the instructor does not reach the thinking apparatus of his men. When the soldier does not understand what has been taught, the instructor has failed, no matter how brilliant his presentation.

*b.* A listener, favorably impressed by an instructor, begins to think about what is being said. If a

good impression is created at the beginning of the talk, his interest can be aroused immediately and can then be directed to the subject being taught by showing him the necessity or usefulness of learning it. After this, maintain his interest by showing interest in him, by avoiding monotony, by developing the subject in a well-organized manner, and by emphasizing important points. Occasionally ask a question, then call upon a soldier to answer it, or ask for a show of hands. Class participation helps keep the interest of its members and furthers their understanding of the subject, because it requires them to think.

### **183. ORGANIZATION OF MATERIAL**

*a.* An instructor loses the interest of his class when his subject does not unfold clearly. Familiarity with a subject is not a substitute for preparation.

*b.* The presentation must be organized so that the listeners can follow step by step. Be sure each step is understood before proceeding to the next step and that each step is developed logically. This is fairly easy in giving instruction on a weapon; it is more difficult with a subject like map reading; and it is still more difficult when teaching ideas rather than mechanical processes. But it can be done by careful preparation.

### **184. TEACH BY APPLICATION**

*a.* Experience can be an excellent teacher. A person gains experience by doing something. Although doing a thing is often the best way to learn it, dem-

onstration provides an effective substitute. Even though a large class cannot personally help disassemble a weapon, they can follow the demonstration step by step, sharing in the experience.

b. Always approach a subject as an experience that the men are going to share. A medical officer teaching first aid does not merely explain how to tie a bandage. He calls for a man and puts the bandage on him. The class follows him in his actions. Thus, the class, in a way, performs the job of putting on the bandage. If they are to learn thoroughly, however, they must then actually put on the bandage. Then the applicatory approach is complete.

## **185. WORD CHOICE**

The rule of word choice is simple: use words the soldiers understand. The instant a man has to stop and think about the meaning of a word, he has lost the course of the conversation. When using new military terms, in teaching inexperienced soldiers, explain their meaning. A definition is of some value, but an explanation or description is better.

## **186. HUMOR**

Humor goes a long way toward keeping soldiers in a receptive mood. An interesting story at an appropriate time creates a pleasant frame of mind and aids learning. Relate it to the subject, or attention will be distracted from the lesson objective. A story may be used successfully at the beginning of the class to gain initial attention. This also helps retain attention during instruction. The soldiers appreciate especially a joke told by the instructor on

himself. Something humorous can be found in any phase of training; capitalize on these opportunities. Administer humor with good judgment and good will, however, so that no minority is offended and no leadership jeopardized.

### **187. DESCRIPTIVE LANGUAGE**

A good description creates a picture and, like a good training poster, it leaves out details that are unimportant. Use descriptive language to help the listener visualize the situation.

### **188. TRITE EXPRESSIONS**

*Point with pride* is an example of a trite or worn-out expression. This phrase lacks originality and, when used, the listener may conclude that the instructor lacks originality of thought. Any soldier welcomes simple, direct, and mature speech. It reflects the clarity and sincerity of army talk, and the absence of bluster or double-talk.

### **189. USE OF EXAMPLES**

Something new is usually learned more readily by relating it to something already known. Apply this principle in instruction and training. Refer the student to a definitely known process or experience and show him how it resembles his present activity. Be sure the example is within his past experience.

### **190. COMBAT EXAMPLES**

Use combat examples to stress the importance of a military subject and to show the right or wrong way of doing a thing when expedient. Historical



examples are available in written form and in the personal experiences of veterans. When possible, draw on the combat experience of the class. Use a combat example that is honest and brief; tell it vigorously. Be sure it illustrates the point and is sufficiently modern to apply to the teaching situation.

## APPENDIX I

### REFERENCES

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AR 265-10	Tactical and Training Inspections.
SR 110-1-1	Index of Army Motion Pictures and Film Strips.
SR 310-20-3	Index of Army Training Publications.
SR 310-20-4	Index of Technical Manuals, Technical Regulations, Technical Bulletins, Supply Bulletins, Lubrication Orders, Modification Work Orders, Tables of Organization and Equipment, Reduction Tables, Tables of Allowances, Tables of Organization, Tables of Equipment, and Tables of Basic Allowances.
SR 310-20-5	Index of Administrative Publications.
SR 320-5-1	Dictionary of United States Army Terms.
SR 385-310-1	Regulations for Firing Ammunition for Training, Target Practice, and Combat.
FM 21-8	Military Training Aids.
FM 21-25	Elementary Map and Aerial Photograph Reading.
FM 21-30	Conventional Signs, Military Symbols and Abbreviations.
FM 21-75	Scouting, Patrolling and Sniping.
FM 23-5	U. S. Rifle Caliber .30, M1.
FM 101-5	Staff and Combat Orders.
FM 105-5	Umpire Manual.
TF 5-12	Map Reading.
TF 7-265	Sand Table—Part I—Preparation.
TF 7-266	Sand Table—Part II—Use.
FS 2-22	The Use of the Lensatic Compass.
GTA 5-2	Elementary Map Reading.
TA 20-2	Equipment for Training Purposes.

## APPENDIX II

### A SAMPLE SUBJECT SCHEDULE

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#### TABLE OF CONTENTS

<i>Section</i>	<i>Hours</i>	<i>Para- graphs</i>
I. General training notes-----	----	1-10
II. Elementary map and aerial photograph reading -----	8	11-16
Total hours-----	8	

#### Section I. GENERAL TRAINING NOTES

1. *Objective.* The purpose of instruction in elementary map reading and aerial photograph reading is to give the soldier an understanding of the characteristics, uses, capabilities, and limitations of military maps and aerial photographs, and to teach him to apply this training to map reading in the field.

2. During this course the soldier is taught to—

*a.* Locate and identify features on the ground from the conventional signs on the map and from images on an aerial photograph.

*b.* Determine direction and distance.

*c.* Orient himself and to orient a map.

*d.* Use the compass.

3. *Training aids.*

*a. Training films and film strips.*

(1) The training films and film strips listed in this paragraph are pertinent to the training

outlined in this subject schedule. Whenever time and circumstances permit, use them as additional training aids.

TF 5-12      Map Reading. (Running time, 43 minutes.)

7-233      Determining Direction in the Field (9 minutes.)

FS 2-22      The use of the Lensatic Compass.

- (2) While the training films and film strips have been included in the equipment and training aids column of the training schedules under the periods to which they pertain, the time allotted to each period does not include the time required to show them.
- (3) When training films and film strips are not available, or it is not practicable to use them, substitute charts or blackboard diagrams as visual aids.
- (4) For general use of training films and film strips, see SR 110-1-1.

*b. Graphic training aid.*

- (1) Graphic Training Aid 5-2, Map Reading, a graphic portfolio, is a valuable training aid.
  - (2) For means of obtaining and methods of using graphic training aids, see FM 21-8.
4. Do not subdivide the periods, because time would be wasted in assembling and issuing equipment.
  5. Before each period, prepare the subject, instruct assistants, check the equipment, and see that a suitable hall or area and a blackboard are available. For each phase of training, prepare practical problems for solution in class.

6. The platoon is the basic unit for this instruction. Organize it into groups of approximately five men each. Place an assistant instructor in charge of each group.

7. Conduct the class as follows:

*a.* Explain each phase of the subject.

*b.* When appropriate, demonstrate the subject matter.

*c.* Apply the principle by requiring a soldier from each group, for example, to find the coordinates of a point on a map, to orient a map, or to identify conventional signs.

8. It may be necessary to pool all compasses issued to specialists in the unit so as to have as many as possible during this instruction.

9. The following additional equipment is required for each platoon:

12 Topographical maps, 1:25,000 (preferably of camp area).

12 State highway maps.

12 Line maps.

12 Coordinate cards (may be improvised).

12 Alidades (rulers may be substituted or the alidades improvised).

12 Protractors (cardboard).

12 Vertical photos (camp area).

10. Whenever practicable continue instruction in map reading. Opportunities exist in connection with almost all exercises conducted in the field.

## Section II. ELEMENTARY MAP AND AERIAL PHOTOGRAPH READING

### SUBJECT SCHEDULE

P—Period  
H—Hours

Total hours: 8

P	H	Lessons	Text references	Area	Training aids and equipment
1	1	Maps; introduction, conventional signs, military symbols.	FM 21-25 paras 1-21, 105-116; FM 21-30 paras 1-8, 10, 21-23, 26, 27.	Assembly hall-----	Blackboard and chalk (white and colored). For each 5-man group: maps, topographical (1:25,000 or similar scale), line maps, and highway maps. Each man to bring notebook and pencil; GTA 5-2.
2	1	Coordinates (less polar); distances, scales.	FM 21-25, paras. 34-52.	-----do-----	Same as first period, plus: coordinate cards and rulers (1 of each for each 5-man group).

P	H	Lessons	Text references	Area	Training aids and equipment
3	1	Direction; use of compass.	FM 21-25, pars. 52-62; FM 21-75, pars. 31-34.	do-----	Same as first period plus: compasses and protractors (1 of each for each 5-man group). TF 7-233; FS 2-22.
4	1	Ground forms, relief, elevation, and contours.	FM 21-25-----	do-----	Same as first period.
5	1	Vertical aerial photos--	FM 21-25, pars. 92-105.	do-----	Maps and vertical photos, camp area, sufficient for 1 of each 5-man group; oblique photos if available.
6	3	Study of ground and maps; orientation; marching by compass, aerial photos; practical test.	FM 21-25, pars. 62-67, 72-86, 104. FM 21-75, pars. 31-34.	Assembly hall and area represented on maps and aerial photographs.	All equipment used in preceding periods. TF 5-12, 7-233, FS 2-22.

## SUBJECT SCHEDULE NOTES

11. *First Period.* Organize the class into groups of five men each, with an assistant instructor, who is a noncommissioned officer or a qualified private, in charge of each group. Distribute equipment to group leaders.

a. In discussing maps, cover the following:

(1) Definition.

(2) Classification.

(3) Conventional signs.

(a) Those resembling the object, such as the symbol for buildings.

(b) Those accenting one feature of the object, for example, the symbol for a barbed wire fence.

(c) Those using an associated idea, such as the symbol for a church.

(4) Military symbols.

b. Have members of each group locate features on the map as announced. The group instructors check to make certain that each soldier is able to recognize all conventional signs.

c. Explain why military symbols are used, and how and when they are used. Draw military symbols on the blackboard, and explain how they can be remembered by an association of ideas.

d. After completing your explanation, erase all symbols from the blackboard and redraw them one at a time. Require members of the class to name each symbol after it is drawn. Call for various symbols, and have all men use pencil and paper to draw them. Assistant instructors check each student's work.



12. *Second Period.*

a. Explain the use of and necessity for coordinates.

(1) Announce coordinates of various objects on the map and require individuals to name the object.

(2) Name objects on the map and require men to give the coordinates.

b. Define map scales; explain why they are needed and how they are used. Give the members of the class practice in measuring—

(1) Cross-country distances.

(2) Road and stream distances.

13. *Third Period.*

a. Explain the use of the compass.

(1) Demonstrate how a compass should be set for night use.

(2) Explain how to read an azimuth and how to follow it by day and by night.

b. Explain and illustrate—

(1) Angular measurement.

(2) True azimuth.

(3) Magnetic azimuth.

(4) Grid azimuth.

c. Require student to—

(1) Orient maps.

(2) Determine, by use of a protractor, magnetic azimuths of lines drawn between designated points on a map.

14. *Fourth Period.*

a. Explain and illustrate—

(1) Contours.

(2) Elevation.

(3) Ground forms and relief.

(4) Method of determining elevation by hachures and by contours.

b. Name objects on the map and require the members of the class to give contour elevations.

c. Have the members of the class stream-line and ridge-line maps.

15. *Fifth Period.*

a. Discuss the importance of vertical aerial photographs. Define the various types and describe their limitations.

b. Discuss the characteristic appearance of various terrain and military features, as shown on vertical aerial photographs. Require the soldiers to locate features like roads, streams, woods, fence lines, etc., on their photographs.

c. Explain and demonstrate the orientation of a vertical photograph by the use of a map, utilizing the pattern of roads and streams. The members of the class draw lines on the map inclosing the area represented by the photograph.

16. *Sixth Period.*

a. When TF 5-12 or TF 7-233 is to be shown, the class meets in an assembly hall. After the showing of the film the members of the class go to an area that is represented on their maps. Use the movement time to and from the area for orienting the men on ground forms, elevation, direction and distance. (For this orientation, use the five-man group organization within each platoon. Put an assistant instructor in charge of each group.)

b. Review orientation of the map by compass and explain orientation by points on the ground. The soldiers orient their maps by both methods.

*c.* Designate points on the map to which the various groups proceed with the aid of a compass.

*d.* Explain orientation of the aerial photograph by comparison with ground features. Have the soldiers orient their photographs by designated features and to locate terrain features shown on the photographs.

*e.* During this period include a practical test in elementary map and aerial photograph reading.

## APPENDIX III

### INSTRUCTOR-TRAINING SUBJECT SCHEDULE

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This appendix is a *minimum subject schedule for training new military instructors*. When possible, the time devoted to the application stage of instruction and the practice speaking is expanded to give the student instructor new ideas and more practice before he conducts training. This schedule may also be expanded to allow the students time to observe experienced instructors actually at work in a unit. Instructor training is continuous. All commanders should criticize their instructors' teaching techniques on the job to insure constant improvement.

P—Period  
H—Hours

Total hours: 21

P	H	Lessons	Text references	Area	Training aids and equipment
1	1	Orientation-----	None-----	Classroom (in-door or out-door).	For instructor: blackboard, charts. For student: notebook, pencil.
2	1	The instructor's job. Fundamentals of learning, introduction to the stages of instruction.	Chapter 4, FM 21-5.	-----do-----	Do.
3	1	Preparation for instruction.	Chapter 5, FM 21-5.	-----do-----	Do.
4	1	Use of training publications 10-minute lecture, 40-minute practical exercises.	SR 310-20-3-----	-----do-----	Do.
5	1	Lesson plans. Conference ½ hour. Practical exercise ½ hour.	Chapter 5, FM 21-5.	-----do-----	Do.

P	H	Lessons	Text references	Area	Training aids and equipment
6	2	Presentation and speaking techniques.	Chapter 6, FM 21-5.	Classroom (in-door or out-door).	For instructor: blackb'd, charts. For student: notebook, pencil.
7	2	Application and examination. Discussion and critique.	Chapter 7 and 8, FM 21-5.	---do-----	Do.
8	*2	Practice speaking. 3-6-minute practical exercises with critiques.	Chapter 12, FM 21-5.	---do-----	Do.
9	1	Training aids and facilities--	FM 21-8; Chapter 10, FM 21-5.	---do-----	Do.
10	1	Evaluation of lesson plans--	Chapter 5, FM 21-5.	---do-----	Do.
11	*8	Practice in giving instruction.	Part Two, FM 21-5.	---do-----	Do.

\*Hours vary with size of class.

## **APPENDIX IV**

### **COMMON TYPES OF OBJECTIVE TESTS**

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#### **TRUE-FALSE TYPE**

**DIRECTIONS:** Each of the following statements is either true or false. When the statement is true, place “+” in the blank space at the left. When the statement is false, place “O” in the space. A statement that is partly false is considered wholly false.

- \_\_\_\_\_ (1) The principal advantage in the use of radio as a means of communication is secrecy.
- \_\_\_\_\_ (2) FM radios cannot communicate with AM radios.

#### **MATCHING TYPE**

**DIRECTIONS:** From the list in column 1 select by letter the best or most nearly correct first aid procedure that applies to the treatment of injuries listed in column 2. Indicate your answer by placing the selected letter in the appropriate blank space in column 2. The items in column 1 may be used more than once.

- | <i>Column 1</i>   | <i>Column 2</i>                        |
|---|--|
| A. Walk the patient around.   | ____(1) Simple fracture                |
| B. Apply pressure dressing.   | ____(2) Slight hemorrhage              |
| C. Avoid drinking water.  | ____(3) Uncontrolled hemorrhage on leg |
| D. Drink two ounces of whiskey.                                       | ____(4) Burn                           |
| E. Remove dirt particles from wound with fingers and apply a bandage. | ____(5) Belly wound                    |
| F. Apply a tourniquet in the groin.                                   | ____(6) Snake bite                     |
| G. Apply a tourniquet below the wound.                                |  |
| H. Apply ointment.  |  |
| I. Use tourniquet, incision, and suction.                             |  |
| J. Apply splint.  |  |

### SIMPLE RECOLLECTION TYPE

**DIRECTIONS:** In the space at the right of each question, write the one word or expression that answers the question correctly.

- (a) How many 60-mm mortars are authorized in a rifle company? (a) \_\_\_\_\_
- (b) What is the T/O grade of a battery commander? (b) \_\_\_\_\_
- (c) On a map what color is used to represent water? (c) \_\_\_\_\_



## COMPLETION TYPE

**DIRECTIONS:** In the blank spaces below, put the word or words which correctly complete the statement:

- (1) The number of degrees to be added or subtracted in determining the back azimuth is \_\_\_\_\_.
  - (2) At night, the "pointer" stars are used to find the \_\_\_\_\_.
  - (3) The ratio of map distance to ground distance is called \_\_\_\_\_.
  - (4) The purpose of a stereoscope is \_\_\_\_\_.
- 

## LISTING TYPE

**DIRECTIONS:** In the blank spaces provided, list *any* six aids that are helpful in identifying objects or features on an aerial photograph.

- |           |           |
|-----------|-----------|
| (1) _____ | (4) _____ |
| (2) _____ | (5) _____ |
| (3) _____ | (6) _____ |

## MULTIPLE CHOICE TYPE

**DIRECTIONS:** Each of the incomplete statements listed below is followed by several phrases. Select the phrase that gives the best or most nearly correct meaning when added to the incomplete statement. Place the identifying letter of that phrase in the numbered blank space to the left of the statement.

——(1) During hours of challenging, a sentry will challenge—

- A. All persons crossing his post except the commanding officer.
- B. All persons crossing his post except other members of the guard.
- C. Only the persons whom he considers dangerous.
- D. All persons crossing his post.

### IDENTIFICATION TYPE

This type test is illustrated in figures 28 and 29. In the test shown in figure 28, the meaning of each symbol is written in the numbered space to the right of the symbol. Figure 29 illustrates a picture-type identification test in which separate answer sheets are utilized, permitting the test sheets to be used more than once. Numbered spaces are provided in the answer sheets corresponding to the number of items in the test sheet.



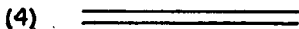
(1) \_\_\_\_\_



(2) \_\_\_\_\_



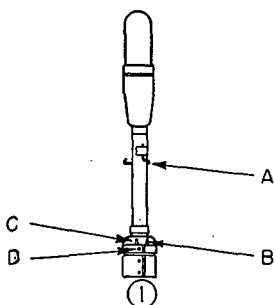
(3) \_\_\_\_\_



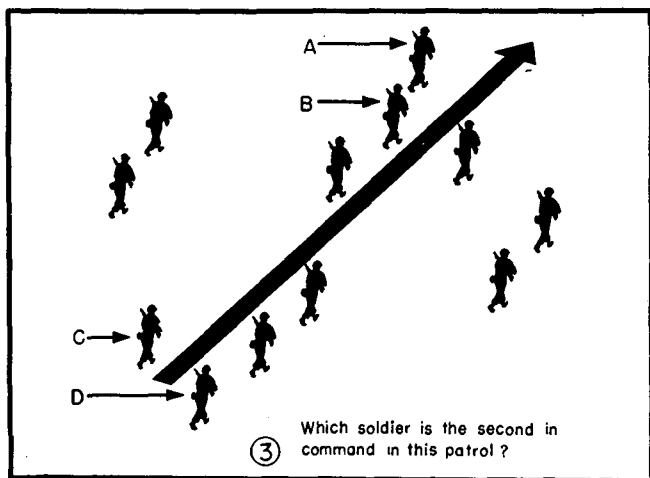
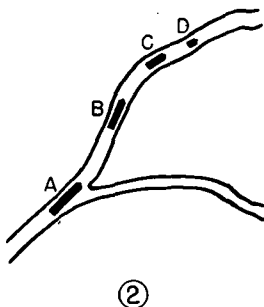
(4) \_\_\_\_\_

*Figure 28. Identification-type test.*

Where is the safety pin of the rifle grenade shown below ?



A soldier on the march in the advance party. Where is he ?



Which soldier is the second in command in this patrol ?

Figure 29. Picture-type identification test.

## **APPENDIX V**

### **SAMPLE FIELD EXERCISE**

---

#### **1. GENERAL**

This appendix presents a sample small unit field exercise complete with control plan and administrative details. The component parts of the sample are discussed in the order of their appearance in the final form of the written exercise.

#### **2. DIRECTIVE**

The preparation of a field exercise is initiated by a directive to an officer to prepare and conduct the exercise (par. 4). The directive contains only those details necessary to planning the exercise. Frequently the directive for small unit exercises is oral. When the preparing officer is the unit commander, the directive may be prepared by him as a result of his training estimate. It serves as a concise statement of his task. In this case it is not formal.

#### **3. UNIT ORDER**

The completed exercise is issued in the form of a battalion or company order (par. 5). Separate battalions and other administrative headquarters may issue this as a training memorandum. The order includes as annexes the scenario and time schedule,

the explanatory sketch, the control instructions, and the umpire score sheet.

#### **4. SAMPLE TRAINING DIRECTIVE**

##### **HEADQUARTERS, 1st BATTALION, 1st INFANTRY**

**Fort Benning, Georgia**

**25 October 19--**

**SUBJECT:** Preparation of a Rifle Platoon Exercise  
**TO:** Capt Paul A. Smith, Co A

1. You will prepare and conduct a combat firing exercise involving a rifle platoon in a daylight attack. Base the exercise on the company commander's oral order to the platoon leader. Develop situations to provide training in—

- a. Initial orders.
- b. Formation of platoon.
- c. Duties of the security element.
- d. Fire and maneuver.
- e. Assault and reorganization.

2. Prepare the exercise for a complete rifle platoon with its organic equipment. All rifle platoons in the battalion will participate.

3. Date and place of the exercise: 8–12 Nov 19--.  
incl, in the **KELLY-SMITH HILL AREA**.

4. Limitations on the terrain: The area available for the exercise is shown on the attached map. The Battalion S-3 will coordinate terrain reservations.

5. Firing will be restricted to the area between two white panel markers, located at (1630 0 5278 8) and (1630 4 5280) from positions in the exercise area northwest of these markers and east of **JONES ROAD**.

6. Ammunition available for each exercise: 50 rds carbine, cal .30 M2; 3,500 rds rifle, cal .30 M1 (AP); 900 rds rifle, cal .30 M1 (tracer); 500 rds—MG, cal .30 (L)—2 belts; 250 rds rifle, cal .30 M1 (blank); 50 simulated hand grenades; 20 hand grenades; 24 flash and sound; and 10 rockets, 2.36 in.

1 Incl: /s/ William T. Able

Map of KELLY-SMITH	WILLIAM T. ABLE
HILL AREA	Lt Colonel, Infantry
	Commanding

## 5. SAMPLE ORDER

HEADQUARTERS, 1st BATTALION,  
1st INFANTRY

Fort Benning, Georgia

BATTALION ORDER  
NUMBER-----2

1 November 19\_\_

Field Exercise

### RIFLE PLATOON IN ATTACK

#### 1. PURPOSE:

The purpose of this exercise is to provide training for the rifle platoon in a daylight attack with emphasis on:

- Initial orders.
- Formation of platoon.
- Duties of the security element.
- Fire and maneuver.
- Assault and reorganization.

## 2. REFERENCE MATERIAL:

FM 7-10, pars. 50-70, 85-97, 116-124.

FM 105-5, Umpire Rules.

AR 750-10.

Garrison Regulation, pars. 58, 59, 61, 63-70.

## 3. SCHEDULE:

6 Nov 1st Plat, Co E (Rehearsal unit)

8 Nov 1st and 2d Plats, Co A.

9 Nov 3d Plat, Co A, and 1st Plat, Co B.

10 Nov 2d and 3d Plats, Co B.

11 Nov 1st and 2d Plats, Co C.

12 Nov 3d Plat, Co C.

## 4. TROOP ORIENTATION:

All troops will be oriented in the exercise area by an umpire before the start of the exercise. The orientation will outline the purpose, safety instructions, identifications, and special instruction for the conduct of the exercise. The general situation will also be given.

## 5. CONTROL PERSONNEL:

a. The chief umpire will be Capt. Paul A. Smith, Co A.

b. CO 1st Inf has directed the 2d Bn to provide the following personnel:

(1) Assistant umpires: One officer and four NCOs.

(2) Safety officer: One officer.

(3) Assistant safety officers: Four officers.

(4) Target detail: One NCO and three Pvts.

(5) Fatigue detail: One NCO and three Pvts.

(6) Road guards: Three Pvts.

(7) Rehearsal unit: One complete rifle platoon.



(8) Radio operators: Three radio operators.

c. Requirements:

(1) Names of the personnel will be given to the S-3, Hq 1st Bn by 030900 Nov.

(2) All control personnel report to the chief umpire at Hq 1st Bn by 0800, 5 Nov for instructions. They will be available to the chief umpire on call for the period 5-12 Nov, inclusive.

(3) Fatigue detail reports to the chief umpire at Hq 1st Bn 1000, 4 Nov for instructions.

## 6. ADMINISTRATIVE DETAILS:

a. Time and place for participating units to report:

Starting times for exercises are 0830 and 1300. Platoons report at the detrucking point (400 yds west of RJ, FIRST DIVISION and JONES ROADS on FIRST DIVISION ROAD) at 0800 and 1230 on the day scheduled.

b. Route: 1ST DIV ROAD—detrucking point.

c. Uniform and equipment:

Fatigue, steel helmets, light packs, belts, arms, filled canteens, and all platoon equipment.

d. Transportation:

The Bn motor officer will provide the following transportation to the chief umpire:

(1) Two  $\frac{1}{4}$ -ton trucks, one  $\frac{3}{4}$ -ton truck, one  $1\frac{1}{2}$ -ton truck for control personnel.

(2) Two  $2\frac{1}{2}$ -ton trucks for participating units. He will contact the chief umpire by 0900, 4 Nov, for details.

e. Equipment and supplies:

- (1) The Bn S-4 will provide the following to the chief umpire by 1000, 4 Nov

- 1 klaxon
- 13 white shoulder loops
- 11 pr binoculars
- 1 MG cal .30 remote control w/blank attachment
- 18 E type targets
- 36 F type targets
- 4 road blocks
- 2 shovels
- 2 picks
- 2 axes
- 2 hammers
- 1 cross-cut saw
- 2 lbs assorted nails

- (2) The Bn S-4 will provide the following ammunition for each platoon to the chief umpire by 1630 on the day before the problem:

- 50 rds carbine, cal .30 M2
- 2500 rds rifle, cal .30 M1 (AP)
- 900 rds rifle, cal .30 M1 (tracer)
- 500 rds MG, cal .30 (L)—2 belts
- 250 rds rifle, cal .30 M1 (blank)
- 50 simulated hand grenades
- 10 rockets, 2.36 in.
- 20 hand grenades
- 24 flash and sound

- (3) The Bn Com O will provide the following to the chief umpire by 0900, 5 Nov

- 16 pack radios
- 3 telephones and 1 mile of wire

**f. Evacuation:**

The Bn Surgeon will have one ambulance, one medical officer and one aid man report to the chief umpire at the detrucking point before the starting time for each exercise. The aid man will be equipped with a field medical kit. Evacuation will be via **FIRST DIVISION ROAD** to Station Hospital.

/s/ William T. Able  
**WILLIAM T. ABLE**  
Lt Colonel, Infantry  
Commanding

**Annex A—Field Exercise; Rifle Platoon in Attack,**  
with 3 inclosures.

**Distribution:**

Order (less annex): 1—ea Rifle Co.

Order (with annex): 2—Regtl S-3.

11—Bn Staff.

1—ea (Umpire and  
Safety Officer).

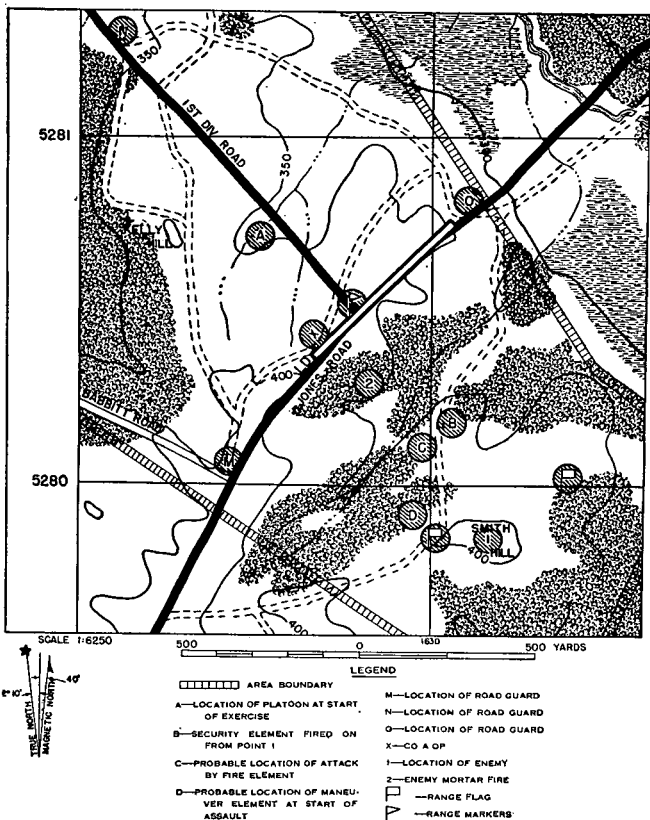


Figure 30. Sketch of problem area (Incl. 1, Annex A. Battalion Order No. 2).

# ANNEX "A" TO BN ORDER No. 2

## Field Exercise

### RIFLE PLATOON IN THE ATTACK

#### 1. GENERAL SITUATION

a. Maps. Sketch of Problem Area, -: 6250 (Incl. 1) (see fig. 30).

b. The 1st Bn 1st Inf, part of a larger force, has been advancing to the southeast from the vicinity of COLUMBUS, generally astride 1st DIVISION ROAD, against light enemy resistance; Co C to the north, Co B to the south, and Co A, of which you are the 1st Platoon, in reserve. Upon reaching the vicinity of 1st DIVISION and JONES ROADS last night, the battalion was ordered to halt and consolidate its position for the night. Co C was ordered to organize an all-around defense northeast of the RJ 1st DIVISION ROAD, JONES ROAD, and Co B to the southwest of this RJ. Co A in battalion reserve for the past 24 hours has been ordered to pass through Co B and continue the attack abreast of Co C, with the mission of seizing SMITH HILL. The 1st Plat, Co A is now 300 yds northwest of the RJ occupying their portion of the company assembly area (Point A). The platoon leaders of Co A are now at the company OP, 150 yds southwest of the RJ (Point X) being oriented by Capt Co A, prior to receiving the company order.

#### 2. INITIAL SITUATION

a. Capt Co A (the chief umpire) issues the following order to his platoon leaders.

"During the night enemy activity was observed in the vicinity of SMITH HILL. Patrols from Co B report that they drew light, sporadic fire from enemy positions in that vicinity. However, exact enemy locations and strength have not been determined.

1st Bn will continue the advance with Co A on the right (S), Co C on the left (N), Co B in reserve. Co D will support the attack as follows: One section machine guns D/S of Co A opening fire at H-hour on SMITH HILL. 81-mm mortar plat will fire on SMITH HILL beginning at H-5 and will lift on call. 75-mm rifle plat will be prepared to fire on call. 1st FA BN in D/S of the 1st Inf. 1st Tk Co. attached to Co C. Mort Co in G/S of the 1st Inf with priority of fires of the 1st Plat to the 1st Bn.

This Co will pass through Co B and continue the attack at -----, on a frontage of 300 yds, to seize SMITH HILL, and be prepared to continue the attack to the SE on order. Direction of attack 142° Mag AZ. Formation: 1st and 2d plats abreast, 1st plat on the left. Line of departure, line now held by Co B, generally along JONES ROAD.

1st Plat with 1st 57-mm squad attached will attack SE on a frontage of 150 yds, with the left flank initially on 1st DV RD and seize the left half of SMITH HILL. Be prepared to continue the attack on order. 1st Plat is base plat.

2d Plat with 2d 57-mm rifle squad attached will attack SE on the right of 1st plat and seize the right half of SMITH HILL. Be prepared to continue the attack on order.

Weapons Plat: 1st and 2d 57-mm rifle squads attached to corresponding numbered rifle platoons. 3d 57-mm rifle squad initially in G/S, will fire on targets of opportunity. 60-mm section support attack initially from positions NW JONES RD. Be prepared to fire on call.

3d plat in support. Initially in ravine 125 yds NW JONES RD. Follow 2d plat by bounds on my order. Protect the Co right flank and be prepared for employment in right portion of Co zone of action.

Contact right to left. Reorganization plan: 1st plat from 9-12 o'clock, 2d plat from 12-3 o'clock.

Battalion ammunition supply point 750 yds northwest of RJ JONES and 1st DIV ROADS along 1st DIV ROAD.

Battalion aid station 500 yds northwest of RJ, on 1st DIV ROAD.

Emergency signal for lifting all supporting fires, red smoke streamer.

Bn CP 1000 yds NW of RJ and south of 1st DIV RD.

Co CP in draw 200 yds NW of JONES RD. Subsequent location in draw 300 yds SE JONES RD.

I will be with the 2d plat after H-hour.

Any questions?

Time is now \_\_\_\_\_."

b. *FIRST REQUIREMENT*

Actions and orders of leaders.

Formations and movement of the Plat from the assembly area, through the attack position, and across the LD.

### 3. SECOND SITUATION

a. The platoon moves out and as security element reaches vicinity of Line Points B-C, it receives small-arms fire from vicinity of SMITH HILL, and the platoon receives mortar fire. (Mortar fire is indicated by umpire firing simulated grenades in vicinity of platoon. Target detail fires blanks from SMITH HILL (Point 1). Silhouette targets representing approximately an enemy squad displayed in vicinity of Point 1. A surprise target of two silhouettes in the same area will also be used to represent an automatic weapon and will be shown twice for a duration of one minute during this situation.)

b. *SECOND REQUIREMENT*

Actions of security element.

Orders of platoon and squad leaders.

Attack by fire and maneuver.

### 4. THIRD SITUATION

a. After elements of the platoon have attacked by fire and the remainder of the platoon has maneuvered to a suitable assault position, enemy fire from SMITH HILL AREA becomes weak and sporadic.

b. **THIRD REQUIREMENT**

Actions and orders of all leaders.

The assault on the company objective.

5. **FOURTH SITUATION**

a. **SMITH HILL** is captured.

b. **FOURTH REQUIREMENT**

Actions and orders of platoon and squad leaders, and actions of squads during the reorganization prior to continuing the attack.

6. **TIME SCHEDULE**

a. Troop orientation at Point A, issuing of company order, orders of platoon, movement to Point B—50 minutes from starting time.

b. **SECOND SITUATION.** (Actions of security element, estimate of situation, orders of platoon leader, fire and maneuver)—30 minutes.

c. **THIRD SITUATION.** (ASSAULT) — 20 minutes.

d. **FOURTH SITUATION.** (Reorganization and contact with company commander)—20 minutes.

e. Critique and score—30 minutes.

f. Total—2 hours and 30 minutes.

**INCLOSURE 2 TO**

**ANNEX A, BN ORDER 2.**

**INSTRUCTIONS TO CONTROL PERSONNEL**

1. **CONTROL**

a. *Umpires*: Chief umpire and 5 assistant umpires.

(1) *Uniform and identification*: Fatigue, steel helmet, white hat bands, white shoulder loops.

(2) *Equipment*: Whistles (thunderer), notebook and pencil, radios for chief umpire and assistant umpires with squads, radios for chief umpire and assistant umpire with target detail.



(3) *Duties:*

- (a) *General:* The chief umpire normally is with the platoon leader during the exercise and one assistant umpire is with each squad and the target detail.

Umpires place themselves where they can best observe the actions of troops.

They remain tactical when possible.

They do not declare casualties for the exercise.

- (b) *Specific:* An assistant umpire (to be designated) meets the troops on 1st DIV ROAD just opposite the attack position, guides them to the area, and gives the troop orientation to the participating unit.

The chief umpire gives the special situation to the platoon leader at Point X, and conducts the critique at Point 1.

The assistant umpire with the target detail controls the target detail simulating enemy action as directed by the chief umpire.

b. *Safety:* Safety officer and 4 assistant safety officers. (Assistant umpire with enemy detail acts as assistant safety officer.)

- (1) *Responsibility:* The safety officer is responsible to the chief umpire for enforcement of all safety regulations.

- (a) *Uniform and identification:* Fatigue, steel helmet, and white hat band.

- (b) *Equipment:* Whistle (thunderer), radios for each safety officer.

- (c) *Duties:*

To familiarize the assistant safety officers, road guards, and aid man with their duties, locations, and safety regulations.

To post the road guards at Points M, N, and O, and to raise the range flag before the exercise.

- To post the aid man and to issue instructions regarding accidents.
- To check with the range guard to assure maintenance of all road blocks and danger signs.
- To place and relieve the target detail in their pits at Point 1, and to issue instructions for their safety.
- To assure that the safety rules governing the exercise are explained to all participating personnel.
- To issue ammunition to the platoon after the troop orientation.
- To check continuously to ascertain that the direction of fire is correct and to inform all umpires of this precaution.
- To inspect all weapons and collect all unexpended ammunition before the final critique.

(d) *Safety rules:*

- All pieces will be locked until ready to fire.
- White panels indicate firing area boundaries.
- Direction of fire will be between the two white panel markers only.
- No firing will be conducted west of JONES ROAD.
- All pieces will be locked on the cease fire signal.
- There will be two emergency signals to stop the exercise :
  - A series of blasts on a thunderer whistle.
  - A series of blasts on a klaxon.
- (Any safety officer or umpire who sees a need for halting the exercise will sound several blasts on his thunderer whistle. This will be repeated by all safety officers and umpires who are within hearing. When the principal safety officer hears the whistle signal he will sound the klaxon until all firing stops. Instructions will

then be issued by radio regarding further action.)

Blank ammunition will not be fired directly towards any person from a distance less than 20 yards.

All injuries will be reported immediately to an umpire or safety officer.

c. *Road guards*: Three privates posted at Points M, N, and O.

(1) *Uniform and identification*: Class C, steel helmet, and white shoulder loops.

(2) *Equipment*: Rifle, cartridge belt, filled canteens, and radios.

(3) *Duties*:

The road guards will allow no unauthorized personnel to enter the area.

Authorized personnel, to be defined by the chief umpire, will be directed to the location designated by the safety officer.

d. *Enemy representation*:

(1) *Number*: 1 NCO and 3 pvts to act as target detail.

(2) *Uniform and identification*: Fatigue, steel helmet, and white arm bands.

(3) *Duties*:

(a) All enemy are represented by silhouette targets dull painted to show helmet, face outline, and shoulders of Aggressor Trooper. These targets are placed in partially camouflaged shallow fox holes. The crew-served weapon is indicated by correct field emplacement, correct grouping of targets representing crew, and wooden mock weapon.

(b) The target detail simulates enemy fire by detonating blasting caps or blanks at the target position by cable-controlled mouse-trap or booby trap firing devices. Machine gun fire is indicated by firing a remote-controlled machine gun buried and

sandbagged into a pit near the target machine gun emplacement.

- (c) The target detail operates from a plainly marked, covered, deep pit located near the southeast SMITH HILL white panel. They indicate enemy fire when so directed by radio message from the chief umpire. Also at his direction, following each problem they patch or replace destroyed targets, replace partial camouflage at the target positions, and reload the remote control firing devices.

e. *Communication:*

Type	Quantity	Use
(1) Radio, Battalion Type	3	To be used for communication between the chief umpire, safety officer, and assistant umpire with the target detail.
(2) Radio, Company Type	13 (5 on one channel, 8 on another)	Five on one channel are used for communication between chief umpire and assistant umpires.* Eight on another channel are used for communication between safety officer and assistants and road guards.*
(3) Telephone	3	For alternate means of communication between attack position, Point X, and target detail pits.

## 2. CRITIQUE (Plan)

a. The chief umpire holds a final critique at *Point 1*, based on a consolidation of umpire check list results. He comments on:

- (1) Review of purpose and situations.
- (2) Plans, actions, and orders of leaders.
- (3) Actions of security elements.
- (4) Conduct of attack.
- (5) Reorganization.

---

\*Assistant umpire with target detail will not be issued company type radio.

(6) A preferred solution to errors made.

(7) Summary of critique.

b. *Scoring*: The chief umpire gives the participating unit a score, based on umpire check lists, at the conclusion of the critique.

### INCLOSURE 3 TO

### ANNEX A, BN ORDER 2.

## RIFLE PLATOON IN ATTACK UMPIRE SCORE SHEET

UNIT: ----- DATE: -----

	<i>Weight</i>	<i>Score</i>
1. Initial situation (total weight—25):		
a. Platoon leader's action taken to prepare his platoon to move out.	<u>1</u>	<u>      </u>
b. Platoon leader's plan for and execution of his reconnaissance.	<u>3</u>	<u>      </u>
c. Selection of an observation post from which the platoon leader issues his order.	<u>1</u>	<u>      </u>
d. Brevity, clearness and completeness of platoon leader's order.	<u>4</u>	<u>      </u>
e. Platoon leader's plan including the initial formation selected.	<u>3</u>	<u>      </u>
f. Brevity, clearness and completeness of squad leader's orders.	<u>4</u>	<u>      </u>
g. Actions of platoon in moving out, including initial formation and maintenance of formation.	<u>2</u>	<u>      </u>
h. Actions of security element during initial advance.	<u>2</u>	<u>      </u>
i. Coordination and control by all leaders.	<u>2</u>	<u>      </u>
j. Time required for—	<u>3</u>	<u>      </u>
(1) Reconnaissance decisions, and formulation of plans.	<u>(1)</u>	<u>      </u>
(2) Issuance of orders.	<u>(1)</u>	<u>      </u>

	<i>Weight</i>	<i>Score</i>
(3) Movement from assembly area to LD.	(1)	—
Total	25	—
2. Second situation (total weight—35):		
a. Actions of security element when fired on:	3	—
(1) Aggressive forward movement.	(1)	—
(2) Use of cover and concealment.	(1)	—
(3) Adjustment of fire.	(1)	—
b. Actions of platoon leader:	3	—
(1) Moving unit to cover.	(1)	—
(2) Reconnaissance.	(2)	—
c. Brevity, clearness and suitability of platoon leader's order.	3	—
d. Platoon leader's plan of attack:	3	—
(1) Attack by fire.	(1)	—
(2) Maneuver element.	(1)	—
(3) Coordination measures.	(1)	—
e. Brevity, clearness and suitability of squad leader's orders.	4	—
f. Attack by fire element:	7	—
(1) Use of cover and concealment.	(2)	—
(2) Occupation of firing positions.	(2)	—
(3) Technique of fire (control).	(3)	—
(4) Prompt engagement of surprise targets.	(1)	—
g. Maneuver element:	7	—
(1) Use of cover and concealment.	(2)	—
(2) Route and technique of movement.	(2)	—
(3) Time required to execute maneuver.	(1)	—
(4) Surprise.	(2)	—
h. Coordination and control by all leaders.	3	—

	<i>Weight</i>	<i>Score</i>
i. Platoon leader's use of supporting fires.	<u>3</u>	<u>      </u>
Total	<u>35</u>	<u>      </u>
3. Third situation (total weight—15):		
a. Coordination between maneuver element and attack by fire element at beginning of assault.	<u>4</u>	<u>      </u>
b. Aggressiveness of assault.	<u>5</u>	<u>      </u>
c. Fire and fire control during assault.	<u>3</u>	<u>      </u>
d. Location of troops at completion of the assault.	<u>3</u>	<u>      </u>
Total	<u>15</u>	<u>      </u>
4. Fourth situation (total weight—10):		
a. Location of squads during reorganization.	<u>1</u>	<u>      </u>
b. Check of squads by leaders for:	<u>2</u>	<u>      </u>
(1) Casualties.	<u>(<math>\frac{1}{2}</math>)</u>	<u>      </u>
(2) Replacement of key individuals.	<u>(<math>\frac{1}{2}</math>)</u>	<u>      </u>
(3) Ammunition requirements.	<u>(<math>\frac{1}{2}</math>)</u>	<u>      </u>
(4) Redistribution of ammunition.	<u>(<math>\frac{1}{2}</math>)</u>	<u>      </u>
c. Consolidation by platoon leader.	<u>3</u>	<u>      </u>
d. Message to company commander to include:	<u>2</u>	<u>      </u>
(1) Situation.	<u>(1)</u>	<u>      </u>
(2) Casualties.	<u>(<math>\frac{1}{2}</math>)</u>	<u>      </u>
(3) Ammunition requirements.	<u>(<math>\frac{1}{2}</math>)</u>	<u>      </u>
e. Preparation to continue the attack or repel counterattack to include:	<u>2</u>	<u>      </u>
(1) Security.	<u>(1)</u>	<u>      </u>
(2) Completion of reorganization.	<u>(1)</u>	<u>      </u>
Total	<u>10</u>	<u>      </u>

*Weight    Score*

5. Effectiveness of fire (total weight—15):

a. Number of targets hit:

$$\frac{\text{No. of targets hit}}{\text{No. of targets}} \times 12 = \text{Score } \underline{12}$$

$$\underline{\hspace{2cm}} \times 12 = \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}}$$

b. Number of hits on targets:

$$\frac{\text{No. of hits}}{\text{Rounds expended}} \times 3 = \text{Score } \underline{3}$$

$$\underline{\hspace{2cm}} \times 3 = \underline{\hspace{2cm}} \quad \underline{\hspace{2cm}}$$

Total                    15          

TOTAL SCORE FOR TEST:

1.	<u>25</u>	<u>          </u>
2.	<u>35</u>	<u>          </u>
3.	<u>15</u>	<u>          </u>
4.	<u>10</u>	<u>          </u>
5.	<u>15</u>	<u>          </u>
TOTAL	<u>100</u>	<u>          </u>

(Signature)  
 PAUL A. SMITH  
 Capt, Infantry  
 Chief Umpire



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